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<110> Craig Rosen,
      Steve Ruben
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<223> n equals a,t,g, or c
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aacgtgggaa tcacacctc cagacctccc acagctccac cccagactgg gcgccggccc 240
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<213> Homo sapiens
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<223> n equals a,t,g, or c
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<222> (369)
<223> n equals a,t,g, or c
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<222> (383)
<223> n equals a,t,g, or c
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cccagtgett gcaccetggt catgtgtage teagtggaga gtggcetgce tggtegegat 180
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gcagggcaag cagggatgcc tggacaagct ggcccagttg ggcccaaagg ggacaatggc 300
tctgttggag aacctggacc aaagggagac acttgggcca agttggacct tcaggaactt 360
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<211> 1853
<212> DNA
<213> Homo sapiens
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<212> DNA
<213> Homo sapiens
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<223> n equals a,t,g, or c
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<221> misc feature
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<221> misc feature
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cettttttge cecaactete agaanggeee cetaceegee cetecegeeg teteceette 180
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<222> (654)
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gaagaacaac cgcagtcgaa ttgttcgtga aggctggcag tgatggggcc aagattggga 300
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<222> (89)
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<222> (3113)

<223> n equals a,t,g, or c

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32

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PCT/US00/05918

34

WO 00/55180

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38

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39

42225

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PCT/US00/05918

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<222> (44)

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51

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WO 00/55180

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63

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65

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67

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<212> DNA
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<212> DNA
<213> Homo sapiens
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<220>

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<222> (1982)
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<221> misc feature
<222> (2043)
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ggccgcccga gggactttga acatgtcggg gatcgccctc agcagactcg cccaggagag 180
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<400> 84
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ggccgcctgg aggcagtatc tcatacctct gacatgcacc gtgggtatgc agacagtcct 240
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gcgggtggga aaatagtatt tactctggtc cgagaggtct gagccccgag gagctctttc 2040
gccccggaaa aaaaagcgcg gtggtgcggt agacacctct ggccctgggg gcgctccat 2099
<210> 85
<211> 3103
<212> DNA
<213> Homo sapiens
<220>
<221> misc feature
<222> (293)
<223> n equals a,t,g, or c
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<400> 85

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<210> 86
<211> 901
<212> DNA
<213> Homo sapiens
<400> 86
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ctgctcctgg cgctcagcac cgctgcccag gccgaaccgg tgcagttcaa ggactgcggt 180
tctqtqqatq qaqttataaa qqaaqtqaat qtqaqcccat gccccaccca accctqccag 240
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<210> 87
<211> 559
<212> DNA
<213> Homo sapiens
<400> 87
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gcgggtcctc cagacagagc aggcagtgaa ggagtataat gccttggttg ccaaggggtc 480
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taagtgccwa aaaaaaaaa
<210> 88
<211> 2287
<212> DNA
<213> Homo sapiens
<220>
<221> misc feature
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<222> (2204)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (2269)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (2275)
<223> n equals a,t,g, or c
<400> 88
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cgccgcagcc acgggcaggc tcctgcttct gctgctggtg gggctcacgg cgcctgcctt 180
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gggggtt
                                                                   2287
<210> 89
<211> 607
<212> DNA
<213> Homo sapiens
<220>
<221> misc feature
<222> (535)
<223> n equals a,t,q, or c
<220>
<221> misc feature
<222> (541)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (542)
<223> n equals a,t,g, or c
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<221> misc feature
<222> (547)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (592)
<223> n equals a,t,g, or c
<400> 89
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gattttttta aagcagagta taattcagtg gaagtgtgtc tttgtcccca gaggtttctg 180
catgtgcaag cattttaatc tagactgcca gaacccccag gctttttagt gaagtttgca 240
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<210> 90
<211> 2338
<212> DNA
<213> Homo sapiens
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PCT/US00/05918

<220>

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<221> misc feature
<222> (121)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (125)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (2333)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (2334)
<223> n equals a,t,g, or c
<400> 90
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<210> 91
<211> 1274
<212> DNA
<213> Homo sapiens
<220>
<221> misc feature
<222> (1264)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (1268)
<223> n equals a,t,g, or c
<400> 91
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cgggggtggg caagacttgt ctgatcattc gctttgcaga ggacaacttc aacaacactt 240
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86

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89

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91

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102

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108

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WO 00/55180

109

PCT/US00/05918

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120

<222> (3399) <223> n equals a,t,g, or c

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122

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127

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<223> n equals a,t,g, or c
<400> 150
aattoggoac gagoggoaac otgggttoog gaagooggag agotggagot ttgaagooac 60
cccggtcaaa ggatgctgag tccggagcgc ctagccctac cggactacga gtatctggct 120
cagcgacatg tcctcaccta catggaggat gcagtgtgcc agctgctaga aaacagggaa 180
gatattagcc aatatggaat tgccaggttc ttcactgaat attttaacag tgtatgccag 240
ggaacacaca ttctctttcg agaattcagc ttcgtccaag ccacccccca caatagggta 300
tcatttttac gggccttctg gagatgcttc cgaactgtgg gncaaaaatg gcgatttgct 360
gaccatgaaa gaatatcact gtttgctgca attactgtgt cctgatttcc cgctggagct 420
caytcagaaa gcagccagga ttgtgctcat ggacgatgcc atggactgct tgatgtcttt 480
ttcagatttc ctctttgcct tccagatcca gttttactac tcagaattcc tggacagtgt 540
ggctgccatc tatgaggacc tgctgtcagg caagaacccc aacacagtga ttggggccga 600
cctcgtccag tgggcagcac cgccacgacc tgccttgggc ngggcccggc acgcttgaag 660
gcgtggaggc ctcgttttct ancag
<210> 151
<211> 1103
<212> DNA
<213> Homo sapiens
<220>
<221> misc feature
<222> (1098)
<223> n equals a,t,g, or c
<400> 151
agegegaggt aeggetagag egteatttee ggetegaatg eeeggeagee gtggeggeta 60
gagogttoct occcagotog aatgooogge ggcogaggog gotagagogt ogcotoctoc 120
cggggaaccg cgtgtgacct tccagcccgc ggaccgatgc tgccggcggc cgctcgcccc 180
ctgtgggggc cttgccttgg gcttcgggcc gctgcgttcc gccttgccag gcgacaggtg 240
ccatgtgtct gtgccgtgcg acatatgagg agcagcggcc atcagaggtg tgaggccctc 300
gctggtgcac ccctggataa cgcccccaag gagtaccccc ccaagataca gcagctggtc 360
caggacateg ccagecteae tetettggaa ateteagace teaacgaget cetgaagaaa 420
acgttgaaga tccaggatgt cgggcttgtg ccgatgggtg gtgtgatgtc tggggctgtc 480
cctgctgcag cagcccagga ggcggtggaa gaagatatcc ccatagcgaa agaacggaca 540
catttcaccg tccgcctgac cgaggcgaac cgtggacaaa gtgaagctga tcaaggaaat 600
caagaactac atccaaggca tcaacctcgt ccaggcaaag aagctggtgg agtccctgcc 660
ccaggaaatc aaagccaatg tcgccaaagc tgaggcggag aagatcaagg cggccctgga 720
ggcggtgggc ggcaccgtgg ttctggagta gcctccagct cggaggactt gtgttcaggg 780
gtcctgggcc ccgggcgagg tcccgcctc ccgtggtcac tggctccgcc cccagcacca 840
ggcgcccagt ggagccgttt gggagaattg cctgcgccac gcagcggggc cggacaggcc 900
gcacagacet actgtggcgg gagggagggg cggctgctgc ctggtgacgg cacccggagg 960
cccaccagga cgcgccaccg gtgaatgtgc ctctggtggc tgctgagaaa aatacactgt 1020
gcagctcaga aaaaaaaaaa aaaaaaaaaaa aaaaaagggc ggccgctcta aaaggttcct 1080
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PCT/US00/05918

```
1103
ccaagggccc aagtttangc tgc
<210> 152
<211> 1117
<212> DNA
<213> Homo sapiens
<220>
<221> misc feature
<222> (1069)
<223> n equals a,t,g, or c
<400> 152
ggcccttccc gcctctgggg aaggaaactt ccgcttcgga ccgagggcag taggctctcg 60
gctcctggtc ccactgctgc tcagcccagt ggcctcacag gacaccagct tcccaggagg 120
cgtctgacac agtatgatga tgaagatccc atggggcagc atcccagtac tgatgttgct 180
cctgctcctg ggcctaatcg atatctccca ggcccagctc agctgcaccg ggcccccagc 240
catecetgge atceegggta teeetgggac acetggeece gatggecaae etgggaceee 300
agggataaaa ggagagaaag ggcttccagg gctggctgga gaccatggtg agttcggaga 360
gaagggagac ccagggattc ctgggaatcc aggaaaagtc ggccccaagg gccccatggg 420
cctaaaggtg gcccaggggc ccctggagcc ccaggcccca aaggtgaatc gggagactac 480
aaggccaccc agaaaatcgc cttctctgcc acaagaacca tcaacgtccc cctgcgccgg 540
gaccagacca teegettega ecaegtgate accaacatga acaacaatta tgageecege 600
agtggcaagt tcacctgcaa gtscccggtc tctactactt cacctaccac gccagctctc 660
qaqqqaacct qtqcqtqaac ctcatqcqtq qccqqqaqcq tqcacagaaq gtggtcacct 720
tetgtgaeta tgeetaeaac acetteeagg teaceacegg tggeatggte etcaagetgg 780
agcaggggga gaacgtcttc ctgcaggcca ccgacaagaa ctcactactg ggcatggagg 840
gtgccaacag catcttttcc gggttcctgc tctttccaga tatggaggcc tgacctgtgg 900
gctgcttcac atccaccccg gctccccctg ccagcaacgc tcactctacc cccaacacca 960
ccccttgccc agccaatgca cacagtaggg cttggtgaat gctgctgagt gaatgagtaa 1020
ataaactett caaggecaaa aaaaaaaaa ageaettaag tatteatena acaateacce 1080
agtageggtg atccagactg aaaagatgeg agaegee
                                                                  1117
<210> 153
<211> 2038
<212> DNA
<213> Homo sapiens
<220>
<221> misc feature
<222> (1490)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (1508)
<223> n equals a,t,q, or c
<220>
<221> misc feature
<222> (1979)
```

130

```
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (1992)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (2010)
<223> n equals a,t,g, or c
<400> 153
tegacecacg acgteeggeg gegggaaget ggeggeageg gteggtggeg gtggetgage 60
agaggacccg gcgggcgcc tcgcgggtca ggacacaatg tttgcacgag gactgaagag 120
gaaatgtgtt ggccacgagg aagacgtgga gggagccctg gccggcttga agacagtgtc 180
ctcatacage etgeagegge agtegeteet ggacatgtet etggtgaagt tgcagetttg 240
ccacatgett qtqqaqeeca atetgtqeeq eteagteete attgccaaca eggteeggea 300
gatccaaqag gaqatqacgc aggatgggac gtggcqcaca gtggcacccc aggctgcaga 360
gegggegeg ytegaceget tggtetecae ggagateetg tgeegtgeag egtgggggea 420
agagggggca catcctgctc ctggcttggg ggacggccac acacagggtc cagtttctga 480
cctttgccca gtcacctcag cacaggcacc aaggcacctg cagagcagcg cctgggagat 540
ggatggccct cgagaaaaca gaggaagctt tcacaagtca cttgatcaga tatttgaaac 600
gctggagact aaaaacccca gctgcatgga agagctgttc tcagacgtgg acagccccta 660
ctacgacctg gacacagtac tgacaggcat gatgggggt gccaggccgg gcccttgcga 720
agggetegag ggettggete eggeeaceee rggeeetage tecagetgea agteegacet 780
gggcgagctg gaccacgtgg tggagatcct ggtggagacc tgagcaggag ccctgagtgc 840
tcacagcogc ctctgacgca ttgacacgtg agcactggct cccacggagg gtgcgcctgc 900
cgccagcggc ccagccttgc tgccctgtct gctgattctg agaaatccca gaacagccca 960
ttaccagtgg ggctgcagcc taggcccgtc ccactcacct ccccctgtg gagggccagg 1020
cagaggetgt tetggaagge ttettgtett etgacgteec cacagecetg ggeecetegt 1080
gtctctttgt gtcccccact gtagaggacg gtgagccgca gctgcatcaa cctcctttta 1140
cctttagata ggtgaatttt tacaattcag ttttacatgt tttgggcagt attttgtctt 1200
aagatatatt ttttaaactt tttatacctt atctctttag attttttcag ctattttctt 1260
aaaagtatat tttttctata aacatccttt gctgctacat tagaactttt atagcctaaa 1320
caattgcagt tggtgtgttt cattttttta aggtttaaat aagggttttt tgttttgttt 1380
tgttttttgc agtgagcatc actacagtct cagtcaacag tgtgaatgta tcatgtttta 1440
ctttaaatgt gtgtgtgata cttcttcatt atgtcctgcg ctgcagtgan gacctgggtg 1500
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caaaaggtta aggctaggtt gaagtctaga atgaaagaaa tctgaatcca tgtcattcat 1860
aaccccttga tctgtagtgt catgggtgct gccgcagagg aagttgagct gggggtgcct 1920
gccagccttt ccactcctgc cccgcttcaa cccaaatgct ccctgtttcc caagctttnc 1980
ccaaatttcc tnaaccttta accaaaagn ggggtttcct ttggggcaaa aaggccat
<210> 154
<211> 645
```

<212> DNA

```
<213> Homo sapiens
<400> 154
tcgacccacg cgtccggcgg ccttcatgct gggctcgctg ctgcggacgt tcaagcaggt 60
caggootota ottitatoca cacogotaco cotoacogot gaatotoata accoacogot 120
ecceaegge tetgecacet graqtgeteg atgqtteett cateagette agreeaagtt 180
cgaagtcact atgtagactg gagaatgtgg cgcgatgtga agagacgaaa aatggcctat 240
gaatacgcag atgagaggct acgtattaat tcactcagga agaataccat tttgccaaaa 300
attetteagg atgtggetga tgaagaaatt getgeeetee eeegggatag etgteetgtt 360
agaatcaqaa atcqqtqtqt tatqacqtcc cqtccqcqtq qtqtqaaqcq qcgctqqaqq 420
cttagtcgta tagtcttccg tcacttagct gaccatgggc aactttctgg gatccagcga 480
gcgacatggt aaatgagctc cagaacctat tgagcttgca gggaagccaa gcttgcagtt 540
ccagcaagca aagatttttt ttaatagacc aaaccctaat ctctacaggg gcccagtaca 600
gttgtttggc ctacctgatg ctatctctaa actactttta aaatg
<210> 155
<211> 1596
<212> DNA
<213> Homo sapiens
<220>
<221> misc feature
<222> (1520)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (1542)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (1559)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (1587)
<223> n equals a,t,g, or c
<400> 155
ctggtcttaa atgaccctct tatttttaac ttggatacct gctattctgc caaaagacaa 60
tttctagagt agttttgaat gggttgattt cccccactcc cacaaactct gaagccagtg 120
tctagcttac taaaaaaaga gttgtatata atatttaaga tgctgagtat ttcataggaa 180
agctgaatgc tgctgtaaag tgctctttaa gtctttttt tttttaatcc ccttctaatg 240
aatgaaacta ggggaatttc aggggacaga gatgggattt gttgtatgat aaactgtatg 300
tagtttttag tetttetgtt ttgaqaagca gtggttgggg catttttaag atggetgget 360
actottgttt tocotcatga taataaattt gtoataacto agtaacatga acttgcccct 420
agaggtagtt gttaataatt ttgaaatatt aaggtcttgc caagcttctg atgattcaca 480
cctgtactac tgattattaa gcaggacaga ctgagctttc tgttgcaaat accttggagg 540
agaaagtaat ttctaaatat acagagaggt aacttgacta tatatgttgc atcctqtqcc 600
```

132

tcccttcata ttaatatttg ataaagattt taatttatgt aaaacttcta aagcagaatc 660 aaagctcctc ttggggaaat ggcaagtctt taggataggc aagaccctgt atgaatagta 720 ccaaagcatt accgcatggt agagaacaca ctcgattaaa aatgttaagc tatctgaaaa 780 ataaaatgtg caagtettea ggatggeaca aaacaaaggt taatgettet tggggeacat 840 ttcttagagg qcttqctqaq tqtqtaaata taatcqactt ttqtttgtgt tacatgactt 900 ctgtgacttc attgaaaatc tgcacaattc agtttcagct ctggattact tcagttgacc 960 tttgtgaagg tttttatctg tgtagaatgg gtgtttgact tgttttagcc tattaaattt 1020 ttattttctt tcactctgta ttaaaagtaa aacttactaa aagaaaagag gtttgtgttc 1080 acattaaatg gttttggttt ggcttctttt agtcaggctt tctgaacatt gagatatcct 1140 gaacttagag ctcttcaatc ctaagatttt catgaaaagc ctctcacttg aacccaaacc 1200 agagtactct tactgcctct tttctaaatg ttcaggaaaa gcattgccag ttcagtcttt 1260 tcaaaatgag ggagaaacat ttgcctgcct tgtaataaca agactcagtg cttatttttt 1320 aaactgcatt ttaaaaattg gatagtataa taacaataag gagtaagcca ccttttatag 1380 gcaccctgta gttttatagt tcttaatcta aacattttat atttccttct tttggaaaaa 1440 cagtetttga ggggattaen aagteegeea tateaceee gngtattgga aggattttng 1560 aattgggcga tggggggaaa caaaggnccc ccccgg <210> 156 <211> 1654 <212> DNA <213> Homo sapiens <400> 156 atgaagaaac tgaggccctg tgatgtgaag tgacttgccc cccagccaca cagcwggacc 60 attctggctg ctgtctggac aagaagtcgt agggggtgag ggtggaagct gggaaaccca 120 caggaggcaa ccacactagt ttagctggcc catggcagtc ccactggccg catcgagggc 180 ttcaccaacg tcaaggagct gtatggcaag atcgccgagg ccttccgcct gccaactgcc 240 gaggtgatgt tetgeaccet gaacacceae aaagtgkaca tggacaaget cetgggggge 300 cagatcgggc tggaggactt catcttcgcc cacgtgaagg ggcagcgcaa ggaggtggag 360 gtgttcaagt cggaggatgc actcgggctc accatcacgg acaacggggc tggctacgcy 420 ttcatcaagc gcatcaagga gggcagcgtg atcgaccaca tccacctcat cagcgtgggc 480 gacatgateg aggecattaa egggeagage tgetgggetg eeggeactae gaggtggeee 540 ggctgctcaa ggagctgccc cgaggccgta ccttcacgct gaagctcacg gagcctcgca 600 aggeettega catgateage cagegtteag egggtggeeg ceetggetet ggeecacaac 660 tgggcastgg ccgagggacc ctgcggctcc gatcccgggg ccccgccacg gtggaggatc 720 tgccctctgc ctttgaagag aaggccattg agaaggtgga tgacctgctg gagagttaca 780 tgggtatcag ggacacggag ctggcggcca ccatggtgga gctgggaaag gacaaaagga 840 accoggatga gotggoogag goootggacg aacggotggg tgactttgoo ttoootgacg 900 agttegtett tgaegtetgg ggegeeattg gggaegeeaa ggteggeege taetaggaet 960 gcccccggac cctgcgatga tgacccgggc gcaacctggt gggggccccc agcagggaca 1020 ctgacgtcag gacccgagcc tecagectga gectagetca geageccaag gacgatggtg 1080 aggggaggtg gggccaggcc ccctgccccg ctccaatcgg taccatcccc tccctggttc 1140 ccagtctggc cggggtcccc ggccccctg tgccctgttc cccacctacc tcagctgggt 1200 caggcacagg gaggggaggg atcagccaaa ttgggcggcc acccccgcct ccaccacttt 1260 ccaccatcag ctgccaaact ggtccctctg tctccctggg gccttgggtt ctgtttggqq 1320 gtcatgacct tcctagtttc ctgacgcagg gaatacaggg gagagggttg tccttccccc 1380 cagcaaatgc aataatgccc tcaccctcc tgagaggagc cccctccctg tggagcctgt 1440 tacctccgca tttgacacga gtctgctgtg aaccccgcaa cctcctcccc acctcccatc 1500 teteetteea ggeecateee tggeecagag caggagggag ggagggaega tggeggtggg 1560 tttttgtatc tgaatttgct gtcttgaaca taaagaatct atctgctgtt aaaaaaaaa 1620

aaaaaaaaa aaaaaaaaa aaaaaaaaa aaag

<220>

```
<210> 157
<211> 1815
<212> DNA
<213> Homo sapiens
<220>
<221> misc feature
<222> (1808)
<223> n equals a,t,g, or c
<400> 157
tegacecacg egteegggge tteeggegge geteaggteg eggggegeet aggeetgggt 60
gtgccccgtg tgctgggctc ctccgtcgcc ggcctccgcg ctgccgcgcc cgcctcgcct 180
ttccggcagc tcctgcagcc ggcaccccgg ctgtgcaccc ggcccttcgg gctgctcagc 240
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gatgaaatta aggaggaaag aaaaattcag aagcataaaa ccctccctaa gatgtctgga 420
ggttgggagc tggaactgaa tgggacagaa gcgaaattag tgcggaaagt tgccggggaa 480
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gaaccctcgc aagggcagaa ggttgaagaa caggagcctg aactgacatc aactcccaat 600
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tatccagagg atgaggttgg acaagaagac gaggctgaga gtgacatctt ctctatcagg 720
gaagttaget tteagteeac tggegagtet gaatggaagg atactaatta tacacteaac 780
acagatteet tggactggge ettatatgae cacetaatgg attteettge egacegaggg 840
gtggacaaca cttttgcaga tgagctggtg gagctcagca cagccctgga gcaccaggag 900
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ttatatgttt tgtgttctca tttattatca tttttttctg tacaaatcta ttatttctag 1140
atttttgtat aacatgatag acataaaatt ggtttatctc ctccaaggca gtttgtcttt 1200
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ccaagetgge tetagaggat cacageecaa gtateacagg cettgsttga teageteetg 1440
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acaattctcc actgactgca aagcattcca ctcttcttcc atcacctctt gaactagaaa 1560
gctgttctga gaattccctg gcccactgct tccagctggc ggtacctgtt taggagcctg 1620
teceggetgt tteteattet etecaggeat etetgeegga aageetettt ecaaggegge 1680
gageceacea gtttgtacag ggageggege ggagacetea acgaeteege cateteetet 1740
tegegggaga caaageeaca agaceegtte cetggaggeg eggeacagae eeetgggagg 1800
tgtatgcncc cgggt
                                                                1815
<210> 158
<211> 1397
<212> DNA
<213> Homo sapiens
```

```
<221> misc feature
<222> (1330)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (1353)
<223> n equals a,t,g, or c
<400> 158
cggacgcgtg gggccgcggc agtcggcgac gccscagagc ggaagaggga agtgaatcag 60
gcgccgggta gtgggttgct gggctgggct tgctgaggta gaggcagcgc caagaagagg 120
cctttgccgc tggtcgggat tgggatgtcg aagaacacag tgtcgtcggc ccgcttccgg 180
aaggtggacg tggatgaata tgacgagaac aagttcgtgg acgaagaaga tgggggcgac 240
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tctggcagga agtggattat ctgcctcggg agtgggaatt gctggtacaa agaccaaaac 660
aaccaaatgc caccgctgcc ctgtgggtag catctgtttc tctcagcttt gccttcttgc 720
tttttcatat ctqtaaagaa aaaaattaca tatcagttgt cctttaatga aaattgggat 780
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tgtttatacc aatctgtata tagtataatt tacattcaag tttaattgtg caacttttaa 900
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taaaaaatat gagagactgg cagctattaa cattgcaaaa ctggaccata tttcccttat 1080
ttaataagca aaatatgttt ttggaataag tggtgggtga ataccactgc caagttatag 1140
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cagcatccaa taatcatggc ccctcaattt atttgtggtc acccagggtt cagagcaaga 1260
agtcttgctt tatacaaatg tatccataaa atatcagagc ttgttggggc atgaacatca 1320
aactttggtn ccactaatat ggctctgttt ggnaaaaact ggcaaatcag aaagaatgat 1380
ttgcagaaag aaagaaa
                                                                   1397
<210> 159
<211> 956
<212> DNA
<213> Homo sapiens
<220>
<221> misc feature
<222> (930)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (941)
<223> n equals a,t,g, or c
<220>
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```
<221> misc feature
<222> (945)
<223> n equals a,t,g, or c
<400> 159
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taataagcaa aatatgtttt tggaataagt ggtgggtgaa taccactgcc aagttatagc 120
tttgtttttg cttgcctcct gattatctgt actgtgggtt taagtatgct actttctctc 180
agcatccaat aatcatggcc cctcaattta tttgtggtca cccagggttc agagcaagaa 240
gtcttgcttt atacaaatgt atccataaaa tatcagagct tgttgggcat gaacatcaaa 300
cttttgttcc actaatatgg ctctgtttgg aaaaaactgc aaatcagaaa gaatgatttg 360
cagaaagaaa gaaaaactat ggtgtaattt aaactctggg cagcctctga atgaaatgct 420
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142

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149

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153

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158

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161

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WO 00/55180

162

PCT/US00/05918

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<211> 3411
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<223> n equals a,t,g, or c
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166

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<211> 2617

<212> DNA

<213> Homo sapiens

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<222> (42)
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169

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172

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WO 00/55180 PCT/US00/05918

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194

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198

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<213> Homo sapiens
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<221> misc feature
<222> (2067)
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<223> n equals a,t,g, or c

<220>

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<211> 3528
<212> DNA
<213> Homo sapiens
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<221> misc feature
<222> (92)
<223> n equals a,t,g, or c
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<221> misc feature
<222> (237)
<223> n equals a,t,g, or c
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<400> 235

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<222> (24)
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<223> n equals a,t,g, or c
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<221> misc feature
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<220>
<221> misc feature
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<221> misc feature
<222> (2003)
<223> n equals a,t,g, or c
<400> 237
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PCT/US00/05918

WO 00/55180

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212

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213

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216

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PCT/US00/05918

2311

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221

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223

PCT/US00/05918

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227

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PCT/US00/05918

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235

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PCT/US00/05918

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246

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WO 00/55180 PCT/US00/05918

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<222> (1581)
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<210> 284
<211> 1062
<212> DNA
<213> Homo sapiens
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<210> 285
<211> 1419
<212> DNA
<213> Homo sapiens
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<220>

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<222> (148)
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<211> 1958
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<222> (1012)
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<222> (781)
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PCT/US00/05918

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<223> n equals a,t,g, or c
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263

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PCT/US00/05918

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267

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271

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<222> (577)
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<222> (585)
<223> n equals a,t,g, or c
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<211> 2019
<212> DNA
<213> Homo sapiens
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PCT/US00/05918

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<222> (2001)
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<213> Homo sapiens
<220>
<221> misc feature
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<211> 1743
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<213> Homo sapiens
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<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (1738)
<223> n equals a,t,g, or c
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PCT/US00/05918

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<222> (1491)
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<222> (1671)
<223> n equals a,t,g, or c
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<221> misc feature
<222> (1704)
<223> n equals a,t,q, or c
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<221> misc feature
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<220>
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<222> (1746)
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<223> n equals a,t,g, or c

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<213> Homo sapiens
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<221> misc feature
<222> (81)
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<221> misc feature
<222> (123)
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<400> 318

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294

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301

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<210> 332

<211> 1985

<212> DNA

<213> Homo sapiens

```
<220>
<221> misc feature
<222> (360)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (1985)
<223> n equals a,t,q, or c
<400> 332
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gtgcacgcca tcaagatggg ctggatccar cctcgccggc cccgagaccc cacccccagc 480
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ggactgtccg cotottcace tagetgttct geetgeetgg ggetggggtg gtegtgetga 1920
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gggtn
                                                                  1985
<210> 333
<211> 3087
<212> DNA
<213> Homo sapiens
```

```
<220>
<221> misc feature
<222> (143)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (166)
<223> n equals a,t,g, or c
<400> 333
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gtgctcccag caacttgctg ggnacttctc gccgctcccc cgcgtnccca ccccctcatt 180
cctccctcgc cttcacccc accccacca cttcgccaca gctcaggatt tgtttaaacc 240
ttgggaaact ggttcaggtc caggttttgc tttgatcctt ttcaaaaact ggagacacag 300
aagagggctc taggaaaaag ttttggatgg gattatgtgg aaactaccct gcgattctct 360
getgecagag caggetegge gettecacee cagtgeagee tteceetgge ggtggtgaaa 420
gagactcggg agtcgctgct tccaaagtgc ccgccgtgag tgagctctca ccccagtcag 480
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aaggagtaca agatcctcag catgagagaa ttattactgt qtctactaat ggaagtattc 720
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tggaagagat aaacctgaaa agaagagtgg ccttatcttc actttatcga taagtcagtt 2280
tatttgtttc attgtgtaca tttttatatt ctccttttga cattataact gttggctttt 2340
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tgcaaagact ttttgaaaat aattaaatta tcatatcttc cattcctgtt attggagatg 2640
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tgtggtttta ttatcttaaa ctctgttcca tacacttgta taaatacatg gatattttta 2880
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tcagtaaaat attttgcttg taaaatgctt aatatcgtgc ctaggttatg tggtgactat 3000
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taaaaaaaa aaaaaaaggg cggccgc
                                                                   3087
<210> 334
<211> 898
<212> DNA
<213> Homo sapiens
<220>
<221> misc feature
<222> (849)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (886)
<223> n equals a,t,g, or c
<400> 334
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cacttttcca gcgctaaagg ctgttttgga accagtgttg cttgttccgc gggtgattgg 120
ctttttttt tggcaaacca gttattcaag tttctggtct ttaaaaaaact ctgtqqcqqt 180
acggtaaccg aggaggttcc agcgcggcgg aagtaccccg cgggtgggtg tgtgcgcaag 240
gccagggcca raggggcacg tggcgccggg aggagagaga atgtcttttc gaggcggagg 300
tcgtggaggc tttaatcgag gtggtggagg tggcggcttc aaccgaggcg gcagcagcaa 360
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<210> 335
<211> 944
<212> DNA
<213> Homo sapiens
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<220>
<221> misc feature
<222> (892)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (908)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (917)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (936)
<223> n equals a,t,g, or c
<400> 335
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caccataatt acccccatac tccttacact attcctcatc acccaactaa aaatattaaa 120
cacaaactac cacctacctc cctcaccaaa gcccataaaa ataaaaaatt ataacaaacc 180
ctgagaacca aaatgaacga aaatctgttc gcttcattca ttgcccccac aatcctaggc 240
ctacccgccg cagtactgat cattctattt cccctctat tgatccccac ctccaaatat 300
ctcatcaaca accgactaat caccacccaa caatgactaa tcaaactaac ctcaaaacaa 360
atrataacca tacacaacac taaaggacga acctgatctc ttatactagt atccttaatc 420
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tttcgctcta agattaaaaa tgccctagcc cacttcttac cacaaggcac acctacaccc 600
cttatcccca tactagttat tatcgaaacc atcagcctac tcattcaacc aatagcctq 660
gccgtacgcc taaccgctaa cattactgca ggccacctac tcatgcacct aattggaagc 720
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ctagtaagcc tctacctgca cgacaacaca taaaaaaaaa aaaaaaaaa anmmcaaggg 900
gggggccngg gttcccnatt ttccccccca aaaagngaaa ttct
                                                                   944
<210> 336
<211> 1607
<212> DNA
<213> Homo sapiens
<220>
<221> misc feature
<222> (1162)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (1449)
```

306

<223> n equals a,t,g, or c

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ccgggagggc aacgcagtcg ccgttcgcct gtggctggac aacacggaga acgacctcaa 180
ccagggctat tgcagtacaa ggcagacatc aatgcagtga atgaacacgg gaatgtgccc 240
ctgcactatg cctgtttttg gggccaagat caagtggcag aggacctggt ggcaaatggg 300
gcccttgtca gcatctgtaa caagtatgga gagatgcctg tggacaaagc caaggcaccc 360
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tctggagagc tatggaaggg ccgctggcag ggcaatgaca ttgtcgtgaa ggtgctgaag 600
gttcgagact ggagtacaag gaagagcagg gacttcaatg aagagtgtcc ccggctcagg 660
attttctcgc atccaaatgt gctcccagtg ctaggtgcct gccagtctcc acctgctcct 720
catectacte teateacaea etggatgeeg tatggateee tetacaatgt actacatgaa 780
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1607
<210> 337
<211> 3156
<212> DNA
<213> Homo sapiens
<400> 337
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cctgagggag cctcgccgcc cgtccccggc acacgcgcag ccccggcctc tcggcctctg 180
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tggtgacgga gaagcagcag atgctggagc agcaccttca ggatgtccgg aagagagtgc 660
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aggatctaga acagaaaatg aaagtggtag agaatctcca ggatgacttt gatttcaact 720 ataaaaccct caagagtcaa ggagacatgc aagatctgaa tggaaacaac cagtcagtga 780 ccaggcagaa gatgcagcag ctggaacaga tgctcactgc gctggaccag atgcggagaa 840

<400> 338

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322

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PCT/US00/05918 WO 00/55180

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326

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ttagaatcat tgggactacc cacaaagtga gcatttcttt ttaaattttc ttgacatttc 960
caagettatt atgaataata ttgcagtgtg tettgteage tgtaggtgge aaaggtgeee 1020
ttataaaaaa ggaaactggc ttttcaaaat gggctatggg agcacaagct gaagctttag 1080
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tcatatggaa tctagatgga tatttcatgc atacccatag agaagtgtgt aagtgatatg 1200
tcagaagagc ttcttactga tttcacctaa aatgagaagg aagtcctgtt ttcaagaatg 1260
acattagagt catgcagctt tgggaccatc agttttatac tgtgataatt gaaaatgaaa 1320
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gtatatggga ggttattggt tttatgttta aggatacgtt tacttgagtt taagatacag 1500
gtcatccatc attcttaggc tcacttttta cagaaagtat gcaaatagta aagtgacagc 1560
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aatgaagcct gatttgatta tgaagctgct taatcactct tcatgtgttc agaattactg 1920
ttttttttgt ttgttttcc tttttgtcac tgtgtacatt aaaattttgg aagatgcttt 1980
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<210> 357
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<211> 1217

<212> DNA

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<220>
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ttttacaaga tcacaagatg ttgatcagct tcgtgatatc aaagagtgcc tatggttcat 180
gcttgaagtt ttaatgacaa agaatgaaaa caatagccat gcctttatga agaagatggc 240
agagaacatc aagttaacca gagatgccca gtctccagat gaatccaaga caaatgaaaa 300
actgtataca gtatgtgatg tggctctctg tgttataaat agtaaaagtg ctttgtgcaa 360
tgcagattca ccaaaggacc cagtcctccc aatgaaattt tttacacaac ctgaaaagga 420
cttctgtaac gataagagtt atatttcaga agagacaaga gtacttctgt taacaggaaa 480
gccaaagcct gctggagtac taggtgcagt aaataagcct ttatcagcaa cgggaaggaa 540
accctatgtt agaagcactg gcactgagac tggaagcaat attaatgtaa attcagagct 600
qaacccttca accqqaaatc qatcaaqqqa acaqaqttca qaggcagcag aaactggagt 660
tagtgaaaat gaagagaacc ctgtgaggat tatttcagtc acacctgtaa agaatattga 720
cccagtaaag aataaggaaa ttaattctga tcaggctacc cagggcaaca tcagcagtga 780
ccgaggaaag aaaagaacag taacagcagc tggtgcagag aatatccaac aaaaaacaga 840
tgagaaagta gatgaatcgg gacctcccgc cccttccaaa cccaggagag gacgtcgacc 900
caagtetgaa teteagggea atgetaceaa aaatgatgat etaaataaac etattaacaa 960
gggaaggaag agagctgcag tgggtcagga gagccctggg ggtttggaag caggtaatgc 1020
caaagcaccc aaactgcaag atttagccaa aaaggcagca ccagcagaaa gacmaattga 1080
cttacaaagg traaaatgca tttgcaaagg gagaaaatga aggccaaaca gaagcaggct 1140
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                                                                   1217
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<210> 358
<211> 1963
<212> DNA
<213> Homo sapiens
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<221> misc feature
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<223> n equals a,t,g, or c
<400> 358
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atgatatgca cacaggagat ccaaagcagg accttgctta tgaacgtcag tatgaacagc 180
aaacctatca qqtqatccct qagqtqatca aaaacttcat ccaqtatttc cacaaaactg 240
teteagattt gattgaceag aaagtgtatg agetaeagge eagtegtgte teeagtgatg 300
tcattgacca gaaggtgtat gagatccagg acatctatga gaacagctgg accaagctga 360
ctgaaagatt cttcaagaat acaccttggc ccgaggctga agccattgct ccacaggttg 420
gcaatgatgc tgtcttcctg attttataca aagaattata ctacaggcac atatatgcca 480
aagtcagtgg gggaccttcc ttggagcaga ggtttgaatc ctattacaac tactgcaatc 540
tetteaacta cattettaat geegatggte etgeteeeet tgaactaeee aaccagtgge 600
tctgggatat tatcgatgag ttcatctacc agtttcagtc attcagtcag taccgctgta 660
agactgccaa gaagtcagag gaggagattg actttcttcg ttccaatccc aaaatctgga 720
atgttcatag tgtcctcaat gtccttcatt ccctggtaga caaatccaac atcaaccgac 780
agttggaggt atacacaagc ggaggtgacc ctgagagtgt ggctggggag tatgggcggc 840
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tgttaggaga ttactaccag gccatcaagg tgctggagaa catcgaactg aacaagaaga 960
gtatgtattc ccgtgtgcca gagtgccagg tcaccacata ctattatgtt gggtttgcat 1020
atttgatgat gegtegttae eaggatgeea teegggtett egecaacate eteetetaca 1080
tccagaggac caagagcatg ttccagagga ccacgtacaa gtatgagatg attaacaagc 1140
agaatgagca gatgcatgcg ctgctggcca ttgccctcac gatgtacccc atgcgtatyg 1200
atgagagcat tcacctccag ctgcgggaga aatatgggga caagatgttg cgcatgcaga 1260
aaggtgaccc acaagtctat gaagaacttt tcagttactc ctgccccaag ttcctgtcgc 1320
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gtttttgcta ccgtgaaacc tttacctaga tcagccatca gcctgtcaac tcagttaaca 1860
aqttaaqqac cqaaqtqttt caaqtqqatc tcaqtaaaqq atctttqqaq ccaqaaaaaa 1920
aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaa
                                                                  1963
<210> 359
<211> 1387
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<213> Homo sapiens
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<222> (1321)
<223> n equals a,t,g, or c
<220>
<221> misc feature
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<222> (1348) <223> n equals a,t,g, or c <400> 359 ggtggaggtc gcggctgagc gagcgagccc tgggcgagtg aattgtggct gtgggttgac 60 ggtggagaca cccccggag gaggcggagg gaagggaggc gaggcctgca cctgcatgct 120 tecegeetee cacteeceag egeeeeegga eegtgeagtt etetgeagga eeaggeeatg 180 gagetegaag teeggeggt eegacaggeg tteetgteeg geeggtegeg acetetgegg 240 tttcggctgc agcagctgga ggccctgcgg aggatggtgc aggagcgcga gaaggatatc 300 ctgacggcca tcgccgccga cctgtgcaag agtgaattca atgtgtacag tcaggaagtc 360 attactgtcc ttggggaaat tgattttatg cttgagaatc ttcctgaatg ggttactgct 420 aaaccagtta agaagaacgt gctcaccatg ctggatgagg cctatattca gccacagcct 480 ctgggagtgg tgctgataat cggagcttgg aattacccct tcgttctcac cattcagcca 540 ctgataggag ccatcgctgc aggaaatgct gtgattataa agccttctga actgagtgaa 600 aatacagcca agatettggc aaagettete ceteagtatt tagaccagga tetetatatt 660 gttattaatg gtggtgttga ggaaaccacg gagctcctga agcagcgatt tgaccacatt 720 ttctatacgg gaaacactgc ggttggcaaa attgtcatgg aagctgctgc caagcatctg 780 accoctgtga ctcttgaact gggagggaaa agtccatgtt atattgataa agattgtgac 840 ctgggacatt gtttgcagac gcataacctg gggaaaatac atgaattgtg gccaaacctg 900 cattgcaccc gactatattc tctgtgaagc atccctccaa aatcaaattg tatggaagat 960 taaggaaaca gtgaaggaat tttatggaga aaatataaaa gagtctcctg attatgaaag 1020 gatcatcaat cttcgtcatt ttaagaggat actaagtttg cttgaaggac aaaagatagc 1080 ttttggtggg qaqactqatg aqqccacacg ctacatagcc ccaacagtac ttaccqatgt 1140 tgatcctaaa accaaggtga tgcaagaaga aatttttgga ccaattcttc caatagtgcc 1200 tgtgaaaaat gtagatgagg ccataaattt cataaatgaa cgtgaaaagc ctctggtctt 1260 taatgtattt tegeataace ataageteat eeaaaegggt gattgatgag aeneeattgg 1320 ngtgtcacag gcatgacgtc ttatgcantc acggtcaccc ttcccctttg gaggatgggt 1380 ccatggg <210> 360 <211> 388 <212> DNA <213> Homo sapiens <220> <221> misc feature <222> (356) <223> n equals a,t,g, or c <220> <221> misc feature <222> (359) <223> n equals a,t,g, or c <220> <221> misc feature <222> (370) <223> n equals a,t,g, or c <220> <221> misc feature

<223> n equals a,t,g, or c

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<222> (371)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (376)
<223> n equals a,t,g, or c
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gateacaagg teaggagate gagaceatee tggetaacae ggtgaaacte agtetetaet 120
aaaaatagaa aaaaataaac caggcgtggt ggcacggcct gtaatcctag ccacttggga 180
ggctgaggca ggagaatcgc ctgaacccag gaggcggagg ttgcagtgag ccaagatcgc 240
accactgcac tccagcctgg gtgatggagc gagactctat ctcaaaaaaa aaattgtgca 300
tgtaaaacat gaaattataa cctgtgctct ttggatacct aatgcgacat ttaagntgna 360
tttgacagtn natagnattt tggatcta
<210> 361
<211> 291
<212> DNA
<213> Homo sapiens
<220>
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<222> (9)
<223> n equals a,t,g, or c
<220>
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<222> (18)
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<222> (40)
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<220>
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<222> (41)
<223> n equals a,t,g, or c
<220>
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<220>
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<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (154)
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<223> n equals a,t,g, or c

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<220>
<221> misc feature
<222> (157)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (207)
<223> n equals a,t,g, or c
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<222> (279)
<223> n equals a,t,g, or c
<220>
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<222> (289)
<223> n equals a,t,g, or c
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gccatcctnc gtctaganct nnctggccgg ganctgacen nntanctcat gaagatcctn 60
gtcgagnnaa ggctacagct tcaccaccac ggccgancgg ggaaatcgtg cgnnacatca 120
aggagaagct gtgctacgtc gccctgggac ttcnagnagg agatggccac cgccgcatcc 180
tcctcttctc tggagaagag ctacganctg cccgatggcc aggtcatcac cattngcaat 240
gagcggttcc ggtgtccggn aggcgctgtt ccagccttnc cttcctggng t
<210> 362
<211> 412
<212> DNA
<213> Homo sapiens
<220>
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<222> (360)
<223> n equals a,t,g, or c
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<222> (385)
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333

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ctaagagcat cgagggggc ccgagaggca agggggggg acgggcggtg gctcgcctcg 120
eggeggaceg ceegeeget ceeaagatee aactacgage tttttaactg cagcaacttt 180
aatatacgct attggagctg gaattaccgc ggctgctggc accagacttg ccctccaatg 240
gatectegtt aaaggattta aagtggacte attecaatta cagggeeteg aaagagteet 300
gtattgttat ttttcgtcac tacctccccg ggtcgggagt gggtaatttg cgcgcctgcn 360
gccttccttg gatgtggtag ccgtntctca agctccctct ccggaatcga at
<210> 363
<211> 351
<212> DNA
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<221> misc feature
<222> (47)
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<220>
'<221> misc feature
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<222> (308)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (332)
<223> n equals a,t,g, or c
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gcccgcggct gcgaggggat cttctctgga tcaagcaatg gtggtgaaaa atgtttcgca 120
agggcaaaaa acgacacagt agtagcagtt cccaaagtag cgaaatcagt actaagagca 180
aggacaaagc aacaataatt cagatacctg tgcagaattt cgaataaaat atgttggtgc 240
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cattgagaaa ctgaaactct ccgagggaaa aggmcttgaa gggccattga gacctgataa 300

attntgnnag acgttggccc agcaaggttg gnaagtttgc cttttgtttc c

334

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<211> 329
<212> DNA
<213> Homo sapiens
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<222> (10)
<223> n equals a,t,g, or c
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<222> (17)
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<222> (19)
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<222> (34)
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<222> (306)
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<220>

<221> misc feature

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<222> (315)
<223> n equals a,t,g, or c
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aggaaatgtt ggtgttgtac tgtttaattt tggcaaagaa aagtttgaag tcaaaaaaagg 120
tgatcgaatt gcacagctnc atttgcnaac ggatttttta tccagaaata gaagaagttc 180
aagccttgga tgacaccgaa agggtttnca ggaggttttg gttccactgg aaagaattaa 240
aatttatgcc aagaacagaa ancaagaagt catacctttt tcttaaaaaa aaaaaaangg 300
tttttncttc caagngtttt gggggtttt
<210> 365
<211> 663
<212> DNA
<213> Homo sapiens
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<222> (508)
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<222> (648)
<223> n equals a,t,g, or c
<220>
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<222> (662)
<223> n equals a,t,g, or c
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gctgcgctcg gctgagtcag tcagtctgtc ggagtctgtc ctcggagcag gcggagtaaa 60
gggacttgag cgagccagtt gccggattat tctatttccc ctcctctct cccgccccgt 120
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atttcttttc accettctcc caccetcgct cgcgtagcca tggcggagcc gtcggcggcc 180 actcaqtccc attccatctc ctcqtcqtcc ttcqqaqccq agccqtccqc qcccqqcqgc 240 ggcgggagcc caggagcctg ccccgccctg gggacgaaga gctgcagctc ctcctgtgcg 300 gtgcacgatc tgattttctg gagagatgtg aagaagactg ggtttgtctt tggcaccacg 360 ctgatcatgc tgctttccct ggcagctttc agtgtcatca gtgtggtttc ttacctcatc 420 ctggctcttc tctctgtcac catcagcttc aggatctaca agtccgtcat ccaagctgta 480 cagaagtcag aanaagggca tccattcnaa gcctacctgg acttnacatt actctgtcct 540 cagaactttc cataattact gaatgctgcc atggtgcaca tcaacagggc ctgaaaatca 600 ttattcgtct ctttctggta aaaatctggt tgantccttg aaactggntg tcttcatgtg 660 gnt <210> 366 <211> 238 <212> DNA <213> Homo sapiens <220> <221> misc feature <222> (21) <223> n equals a,t,g, or c <220> <221> misc feature <222> (67) <223> n equals a,t,g, or c <220> <221> misc feature <222> (223) <223> n equals a,t,g, or c <400> 366 ctgagactcc agcaggatgt nttatcaaca gcagcagtgc aagcagccct gccagccacc 60 tectgtntge eeegegeeaa agtgeeeaga geeatgteea eeeeegaagt geeetgagee 120 ctgcccacca tcaaagtgtc cacagtcctg cccacctcag cagtgccagc agaaatgtcc 180 tcctgtgaca ccttccccac cctgccagcc aaagtgttca ccnaagagca agtaacag <210> 367 <211> 291 <212> DNA <213> Homo sapiens <220> <221> misc feature <222> (38) <223> n equals a,t,g, or c<220> <221> misc feature <222> (133) <223> n equals a,t,g, or c

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<222> (280)
<223> n equals a,t,g, or c
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cgcctcctac ctgctggctg ccctaggggg caactcctcc cccagcgcca aggacatcaa 120
gaagatettg ganagegtgg gtategagge ggacgaegae eggeteaaca aggttateag 180
tgagctgaat ggaaaaaaca ttgaagacgt cattgcccag ggtattngca agcttgccag 240
tgtaccngct ggttggggc tgtaaccgtc tctgntggnn ccaagcctct g
<210> 368
<211> 400
<212> DNA
<213> Homo sapiens
<220>
<221> misc feature
<222> (76)
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<220>
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<222> (129)

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<222> (317)
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<221> misc feature
<222> (372)
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<223> n equals a,t,g, or c

<221> misc feature

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<220>
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<222> (373)
<223> n equals a,t,g, or c
<220>
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aatteggeae agetgeeget ggetettege tegegggtat ggtgagetee gagetgeage 60
tggttgagca gcggtngccg cagcttnccc gacttcccca ccccaggggt ggtattcagg 120
gacatetene eegintigaa ggaceeegne incittegeg eegneategg eeteetggeg 180
cgacanctga aggcgaccca cgggggccgc atcgactaca tcgcaggcct agactnccgg 240
agagtteete ttttggeeet eeetggteea ggagetttgg aetgggetge gtggttaate 300
cgnaancggt gngaagntgn cnaggnccca attctntggg nttantgatt tcctnggagt 360
naggggaagn tnnaggttga ggatttanga aaaaggcctt
                                                                   400
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<211> 428
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<220>
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<222> (293)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (308)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (342)
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<220>
<221> misc feature
<222> (375)
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<220>
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<222> (57)

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<222> (425)
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ccacctegea ggtgcgccag aactaccacc aggactcaga ggccgccatc aaccgccaga 60
tcaacctgga gctctacgcc tcctacgttt acctgtccat gtcttactac tttgaccgcg 120
atgatgtggc tttgaagaac tttgccaaat actttcttca ccaatctcat gaggagaggg 180
aacatgctga gaaactgatg aagctgcaga accacgaggt ggccgaatct tcttnaggat 240
atcaagaaac cagactgtga tgactgggag aacggctgaa tgcaatggaa tgngcattac 300
attttggnaa aaaatgggga attaatcact tctgggaact gnacaaactg ggcacttgcc 360
aaaaatggcc cccantttgg gggactttan ttgagaccca attacctgat agccaggtna 420
aaagncct
                                                                    428
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<220>
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<222> (51)
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<220>
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<222> (300)
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<222> (309)
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<220>
<221> misc feature
<222> (350)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (362)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (385)
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caagettgtg aggneteetg tteaggtata nggtattgaa ggtngetatg neacagntet 60
ttattctgct gcatcaaaac agaataagct ggagcaagta gaaaaggagt tgttgagagt 120
agcacaantc ctgaaggaac ccaaagtggc tgcttctgtt ttgaatccct atgtgaagcg 180
ttccattaaa gtgaaaagcc tanntgacat cacagcaana gagaggttnt ctcccctaca 240
ctaccaacct gntcantttg cttgctgaaa atggtngatt aagccgatac ccaaggagtn 300
gtttntgnnt tttctaacat ggatgagtgt ccatcgcgga gaggtacttn cacagtgacc 360
tntggaatct cctttagaag aagcnacact cctctgaatt agaaatgtcc tcaaggcttc 420
ctgaggcaag gca
                                                                   433
<210> 371
<211> 538
<212> DNA
<213> Homo sapiens
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<220>
<221> misc feature
<222> (513)
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<223> n equals a,t,g, or c

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<220>
<221> misc feature
<222> (529)
<223> n equals a,t,g, or c
<400> 371
aaaggacgaa cctgatctct tatactagta tccttaatca tttttattgc cacaactaac 60
ctcctcggac tcctgcctca ctcatttaca ccaaccaccc aactatctat aaacctagcc 120
atggccatcc ccttatgagc gggcgcagtg attataggct ttcgctctaa gattaaaaat 180
gccctagccc acttcttacc acaaggcaca cctacacccc ttatccccat actagttatt 240
ategaaacca teageetaet catteaacca atageeetgg eegtaegeet aacegetaac 300
attactgcag gccacctact catgcaccta attggaagcg ccaccctagc aatatcaacc 360
attaacette cetetacaet tateatette acaattetaa ttetaetgae tateetagaa 420
ategetgteg cettaateca ageetaegtt tteacaette tagttaagee tetacetgea 480
cgacaacaca taaaaaaaaa aaaaaaaaaa ntnaaggggg gggcgggtnc ccaatccc 538
<210> 372
<211> 405
<212> DNA
<213> Homo sapiens
<220>
<221> misc feature
<222> (2)
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<222> (7)
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<222> (9)
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<222> (11)
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<220>
<221> misc feature
<222> (19)
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<222> (39)
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<220>
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<222> (42)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (45)
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<222> (59)
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<222> (241)
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<220>

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<222> (362)
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tncancnent nactaccene actaaaggga acaaaageng gngeneeace geggtgegne 60
cgcnctagaa ctagtggntc ccccgggctg caggaattcg gcacgaggtc gccaagatgg 120
tgaagcccaa gtacaaagga cggngcacca tcaacccgtc caaggccagc acaaacccag 180
ntcgagtgca gggagcanga ggccaaaaaca tgagggaccg ggccaccatc cggcgcctga 240
ntatgtatag gcaaaaggag cgcaggnaca gtcgtggtaa antaattaaa cccctgcaat 300
atcaatcaac ggtggcttct ggcacagtgg caagagtaga gccaaatatt aaatggtttg 360
gnaacacacg tgtgattaag cagtcatcat tacaaaaatt tcaag
                                                                   405
<210> 373
<211> 460
<212> DNA
<213> Homo sapiens
<400> 373
gcaagaacgc cctggagaag tacggacccc tgaagcccct gccacagacc ccgcacctgg 60
aggaggactt gaaggaggtg ctgcgttctg aggctggcat cgaactcatc atcgaggacg 120
acatcaggcc cgagaagcag aagaggaagc ctgggctgcg gcggagcccc atcaagaaag 180
teeggaagte tetggetett gacattgtgg atgaggatgt gaagetgatg atgteeacae 240
tgcccaagtc tctatccttg ccgacaactg ccccttcaaa ctcttccagc ctcaccctgt 300
caggtatcaa agaagacaac agctteteee aageceaegt caggeetgge etcateteag 360
accetgetta ggatggggga tgtggcaggg gtgeteetgt geteaecete tettggtgea 420
tttttttgga agaataaaat tgcctctctc tttaaaaaaa
                                                                   460
<210> 374
<211> 393
<212> DNA
<213> Homo sapiens
<220>
<221> misc feature
<222> (343)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (376)
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<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (377)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (378)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (393)
<223> n equals a,t,g, or c
<400> 374
gccctgagcc ccctgaatct tggagtggtg tgagggatgg aaccacccat ccggccatgt 60
gtctacagga cctcaccgca gtggagtcag agtttcttag ccagttcaac atgaccttcc 120
ttccactttg agggaggtgc ttcgaagaat gttgcccaca cctaagtgtt agaagcctat 240
aactcgaggg ggggccccgg acccaatttg ccctataggg agncgattac aattcactgc 360
cgcgttttac aacgtnnnga ctggaaaaac ccn
<210> 375
<211> 587
<212> DNA
<213> Homo sapiens
<220>
<221> misc feature
<222> (24)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (30)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (75)
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<221> misc feature
<222> (118)
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<220>
<221> misc feature
<222> (135)
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<220>
<221> misc feature
<222> (137)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (208)
<223> n equals a,t,g, or c
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<221> misc feature
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<221> misc feature
<222> (322)
<223> n equals a,t,g, or c
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<222> (332)
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<222> (375)
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<222> (383)
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<222> (415)
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<220>

350

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<222> (464)
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<220>
<221> misc feature
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<220>
<221> misc feature
<222> (496)
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<220>
<221> misc feature
<222> (502)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (529)
<223> n equals a,t,g, or c
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<222> (554)
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<221> misc feature

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acttetecta teteneceag teetagetge tggcateact atactactaa cagacegnaa 120
cctcaacacc acctnenteg acccegeegg aggaggagac cccattctat accaacact 180
attetgattt tteggacace etgaaggnna tattettate etaceagget teggaataat 240
ctcccatatt gtaacttact actccggaaa aaaagaacca tttggataca taggtatgga 300
ctgagctatg atatcaattg gnttcctagg gnttatcgtg agagcacacc atatatttac 360
agtaggaata gacgnagaca cangagcata tttcacctgc gntaccataa tcatngntat 420
ccccaaacgg ggncaaagna attaagctgg actaggcaca nttncaaggg aagcaataat 480
gaaaanggac tgctgnaaga gnttctgagc cctaaggaat caactttcnt ttcaaccgga 540
aggggggccg aatngggaat gggattaacc aaactnaata attggaa
                                                                   587
<210> 376
<211> 461
<212> DNA
<213> Homo sapiens
<220>
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<220>
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<222> (41)
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<220>
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<222> (60)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (66)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (74)
<223> n equals a,t,g, or c
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<221> misc feature
<222> (209)
<223> n equals a,t,g, or c
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<220>

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<220>
<221> misc feature
<222> (220)
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<220>
<221> misc feature
<222> (240)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (314)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (332)
<223> n equals a,t,g, or c
<220>
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<400> 376
gtcaaaatta accetcacta aagggaacaa aagetggnge necacegegg tgcgacegen 60
ctaganctag tggntccccc ggcctgcagg aattcggcac gaggtgaaaa ctacccctaa 120
aagccaaaat gggaaaggaa aagactcata tcaacattgt cgtcattgga cacgtagatt 180
cgggcaagtc caccactact ggccatctna cctataantn cggtggcatc gacaaaagan 240
ccattgaaaa atttgagaag gaggctgctg agatgggaaa gggctccttc aagtatgcct 300
gggtcttgga taanctgaaa gctgagcgtg ancgtggtat caccattgat atctccttgt 360
ggaaatttga gaccagcaag tactatgtga ctatcattga tgccccagga cacagagact 420
ttatcaaaan catgattaca gggacatctc aggctgactg t
<210> 377
<211> 517
<212> DNA
<213> Homo sapiens
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<220>
<221> misc feature
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<221> misc feature

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<222> (484)
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<221> misc feature
<222> (488)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (508)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (515)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (517)
<223> n equals a,t,g, or c
<400> 377
gaataggaat tacaaggcca gacttagtgg ccttgtgtca taggagccat ggtgtttaat 60
atcagacttt gttttaacaa ttgaaagccc accgaaggtg cactaaagca agcccttgat 120
ttattttttg agtcaaactt cttgtggtgt tttgcgggga tagtgcttat tgaattttgg 180
gtttctttga aataatcact gtttgtttcc cctttgtagc tgggaacttc tggggtagga 240
cgttgctgct atcttcagtt ncacagaccc aaccagttac gatggttttg gaccatttat 300
gccgggattc gacatcattc cctataatga tctgcccgca ctggaggtat ttcactagcg 360
tcatagtgct cagctcattg ggaatagaaa ttaaagctgt tgaatatatg aattaaaagt 420
cattatatga cagtaatgca aatttatctc acttaaggta accacgattc agacttggtc 480
ttantacnat caattagttt ccaacconga gaaantn
                                                                   517
<210> 378
<211> 302
<212> DNA
<213> Homo sapiens
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<220>
<221> misc feature
<222> (56)
<223> n equals a,t,g, or c
<220>
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<220>
<221> misc feature
<222> (167)
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<221> misc feature
<222> (191)
<223> n equals a,t,g, or c
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<221> misc feature
<222> (210)
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<220>
<221> misc feature
<222> (242)
<223> n equals a,t,g, or c
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<222> (245)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (293)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (296)
<223> n equals a,t,g, or c
<400> 378
naccatacaa aagggaacaa aagcatggag catccaccgc ggtggcggcc gctctngaac 60
nagtggatcc cccgggctgc aggaattcgg cacgagcgca ggccctgaaa tgcagactgg 120
ccgaaataac tttgtcntcc ggcggaaccc agctgaccct cagcgcnttc cctccaaccc 180
ttcccaccgt ntccagtgtg cagcaggctn cgagcaaagt gaacacaacg tgtgccaaga 240
cntanacgag tgcactgcag ggacgcacaa ctgtagagca gaccaagtgt gcntcnattt 300
ac
                                                                   302
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<210> 379
<211> 491
<212> DNA
<213> Homo sapiens
<220>
<221> misc feature
<222> (3)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (8)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (10)
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<222> (15)
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<220>
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<220>

356

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tecgatttee teteegettg caaceteegg gaccatette teggneatet cetgnttetg 120
ggacctgnca ccaccgtttt tgtggttagc tccttcttgc caaccaacca tgagctccca 180
gattcgtcag aattattcca ccgacntgga ggcnaccgtc aacagcctgg tcnatttgta 240
cctgcatgcc tcctacacct acctctctct gggcttctat ttcnaccncg atgatttggc 300
tctggaaagc gtnagccnct tcttccacga aactggccga ggagancgcg anggctacga 360
acqtctcctg aatatgcaaa accagcgtgg gcggccgcgc tctcttccag gaagtcaaca 420
agcconotta aanataattg gggttaaaac cocaaaanco ntgnaaactt gccattgccc 480
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ggnccacttg gaaaacccgg tggtatncca tgaagaaaac cactatnnag ataatcccnt 120
tcaacaggct cacaattnga gaaggacagc aacaccacct agggggagcc aaacaggctg 180
gngacgttta aaagaccgnt tncaaangag gtnnacttat tntaaagggn ctnatatatg 240
                                                                   270
aagcagagga ggtgataatt agtttntcct
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<211> 160
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<222> (158)
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accaaatatg aagtgagtgt ctatgctctt aaggacactt tgacaagcag accagctcag 120
ggagttgtca ccactntgna naatgtcagc ccancaanaa
                                                                   160
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tcaagaagga ctggaaggac tgagcccagc cagaggcggg cagggcagac tgacggacgg 120
acgacggaca ggcggatgtg tccccccag ccctccct ccccatacca aagtgctgac 180
aggeoctecg tgccctccc accetggtcc gcctccctgg cctggctcaa ccgagtgcct 240
ccgaccccc tectcagecc tececcaccc acaggeecag cetecteggt etectgtete 300
gttgctgctt ctgcctgtgc tgtgggggag agaggccgca gccaggcctc tgctgccttt 360
ctgtgccccc caggttctat ctccccgtca cacccgaggc ctggcttcag gagggagcgg 420
agcagcattc tccaggcccc cgttggttgc cctggacgtg tgcgtctgtg ttcgggtgga 480
ctggggtgtg ggatgcacgg nctgtggggg ccggccgtct cagcccgtgt cctgcagccc 540
ttgcgctgcg gccgctaaca tntgctacat ggggtgacgg gggctatagc ttactctggt 600
gatacatggg ctccgcc
                                                                   617
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cccgccgagg ccctggcagc tgggggtggg cgccgtccgt acgctgcgca ctggacccgc 120
tctgctctcg gtgcgtaaat tcacaganaa acacgaatgg gttaacaaca gaaaatggca 180
ttggaacagt gggaatccag caattttgca caggaagcgt tgggaaattt tgtttattgt 240
tatctccctg aaatttggga caaaatttga aacaaacaaa ttaattttgg gttgcttttg 300
gagggtt
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<211> 424
<212> DNA
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<220>
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gtggagtccc tgtgctagga tttttcatca tagctgtgct gatgagcgct caggaatcat 120
gggctatcaa agaagaacat gtgatcatcc aggccgagtt ctatctgaat cctgaccaat 180
caggogagtt tatgtttgac tttgatggtg atgagatttt ccatgtggat atggcaaaga 240
aggagacggt ctggcggctt gaagaatttg gacgatttgc cagctttgan gctcaaggtg 300
cattggccaa catagctgtg gacaaagcca acctggaaat catgacaaag cgctccaact 360
atactccgat caccaatgta cctnnagagg tnanctgtgc tcacgancag ccctgtggaa 420
ctga
                                                                   424
<210> 385
<211> 352
<212> DNA
<213> Homo sapiens
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<223> n equals a,t,g, or c
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<222> (289)
<223> n equals a,t,g, or c
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agccgtggtc caggagacgg agggaacaga gaccactgga aggagtcaga taggaaagat 120
ggcaaaaagg atcaagactc cagatctgca cctgagccaa agaaacctga ggaaaatcca 180
gcttctaagt tcagttctgc aagcaagtat gctgctctct ctgttgatgg tgaagatgaa 240
aatgagggag aagattatgc cgaatagacc tctacatcct gtgcttttnt cctagtttct 300
ctccacctg ggaacattcg agagcaaatc aaaacctcta tccagacaag ac
<210> 386
<211> 674
<212> DNA
<213> Homo sapiens
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<222> (555)
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<222> (617)
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<222> (631)
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<222> (666)
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gattetecet gggtacateg actteactge agaccaggtg gacetgactt etgetetgae 60
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caaqaaaatc actcttaaqa ccccactqqt ttcctctccc atqqacacaq tcacaqaqqc 120
tgggatggcc atagcaatgg cgcttacagg cggtattggc ttcatccacc acaactgtac 180
acctgaattc caggccaatg aagttcggaa agtgaagaaa tatgaacagg gattcatcac 240
agaccotyty gtootoagoo coaaggatog cytycyggat ytttttgagg ccaaggooog 300
gcatggtttc tgcggtatcc caatcacaga cacaggccgg atggggagcc gcttggtggg 360
catcatctcc tccagggaca ttgattttct caaagaggag gaacatgact gnttcttgga 420
agagataatg acaaagaggg aagacttggt ggtagcccct gcaggcatca cactgaagga 480
ggcaaatgaa attctgcagc gcancaagaa nggaaaggtg cccattgnaa atgagatgat 540
gagettgngg geatnatgge eggaeagane tgaagaagaa tegggetane cactagette 600
aaagatgcca gaacaantgt gggtgggcaa ncatgggact atgggtgcca gttaggtggc 660
ttgttnccaa cntg
<210> 387
<211> 309
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actetttcag ccccacctg aaacatcacc ctcaagaacc agetaatecc aacatgeetg 180
ttgttttgac atctggaaca gggtcgcaag cgcancacaa ccagctgcaa atcaggctct 240
tgcagctggg actcactcca gccctgtccc aggatctata ggagttgcag gccgttccca 300
ggacgacgct atggtggact anttcttttc agaggcagca ttggtgagca gcttgggggg 360
aagaaggaan tggaagaagg cnggnattat taataagcaa acntcgat
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<211> 601
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<223> n equals a,t,g, or c

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 gacgaaagat gaactgattg cccgcctccg ctcgctgggt gaacaactga accgtgatgt 120
 cagcctgacg gggacgaaag aagaactggc gctccgtgtg gcagagctga aagaggagct 180
 tgatgacacg aggcctaagc ttggcactgg ccgtcgtttt acaacgtcgt gactgggaaa 240
 accetggcgt tacccaactt aatcgcettg cagcacatce ccetttegce agetggcgta 300
 atagegaaga ggcccgcacc gatcgccctt cccaacagtt gcgnagcctg aatggcgaat 360
 ggcgcctgat gcggtatttt ctccttacgc atctgtgcgg tatttcacac cgcatatggt 420
 gcactotcag tacaatotgo totgatgoog catagttaag coagconoga caccoggoaa 480
 caccegntga egegeeetga egggettget getteeggea tnegettaca gacaagetgt 540
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gaccgttccg gnagctgcat gtgtcaaaag gttttnaccg tatnaccgaa acgcgcnaaa 600
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<222> (389)
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<222> (392)
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<220>
<221> misc feature
<222> (393)
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tttgggcatc ttcatgacca ttctgctcat catcatccca gtgttggtcg tccaggccca 120
gcgatagatc aggaggcatc attgaggcca ggagctctgc ccgtgacctg tatcccacgt 180
actotatott coattootog cootgoooco agaggocagg agototgoco ttgacotgta 240
ttccacttac tccaccttcc attcctcgcc ctgtccccac agccgagtcc tgcatcancc 300
ctttatcctc acacgetttt ctacaatggc attcaataaa gtgtatatgt ttctggtgaa 360
407
<210> 391
<211> 566
<212> DNA
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gcagtgagcc aaggagcagc atatagtcca gagggtcagc ccatggggag ctttgtgttg 120
gatggtcagc aacacatggg gatccggcct gcaggtttgc agagcatgcc aggggactac 180
gtttctcagg gtggtcctat gggaatgagt atggcacagc caagttacac tcctccccag 240
atgaccccac accctactca attaagacat ggacccccaa tgcattcata tttgccaagc 300
catececace acceagecat gatgatgeac ggaggacece etacecacec tggaatgact 360
atgtcagcac agagcccac aatgttaaat tctgtagatc ccaatgttgg cggacaggtt 420
atggacattc atgcccaata gtntaagggg actcaaggga aaagggaaca cacgcaaaaa 480
ctattttaag acttctggaa ctttgaccag gtgttgacac ttaatatgaa attccagaca 540
gctgtgatta tttttaactt tggcat
<210> 392
<211> 425
<212> DNA
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<220>
<221> misc feature
<222> (283)
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<222> (346)
<223> n equals a,t,g, or c
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<222> (355)
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<222> (365)

<223> n equals a,t,g, or c

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<223> n equals a,t,q, or c
<220>
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<222> (393)
<223> n equals a,t,g, or c
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atcacactga cctggcagcg ggatggggag gaccagaccc aggacacgga gctcgtggag 120
accaggeetg caggggatgg aacettecag aagtgggegg etgtggtggt geettetgga 180
gaggagcaga gatacacctg ccatgtgcag catgagggtc tgcccaagcc cctcaccctg 240
agatgggagc tgtcttccca gcccaccatc cccatcgtgg gcntcattgc tggcctggtt 300
ctccttggac tgtgatcact ggagctgtgg tccctgccct gatttngtag gaagnaaaan 360
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<210> 393
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<223> n equals a,t,g, or c

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<220>
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<223> n equals a,t,g, or c
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ccactcagca tettgetetg ggcagattca gactgagece gecactceae ggtgatgggg 120
ttctggaggc tggggtgctc catgtggcag gtgtagacgt ctccatgctg gggagtcatt 180
tecageatea ceaggatetg gaaggteeag teacegttee taataagggg ggtggacaca 240
acgccggttg tctcctcctg gtcattccga atctgcccag agcaagatgc tgagtggcat 300
gaaanggete etgeaetgae teetnagaet attttaaetg ggattggtat caetttteng 420
taagcctgct tgtccctgcc can
<210> 394
<211> 189
<212> DNA
<213> Homo sapiens
<220> .
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<223> n equals a,t,g, or c
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<222> (19)
<223> n equals a,t,g, or c
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<222> (44)
<223> n equals a,t,g, or c
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<222> (80)
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<222> (148)
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<220>
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<222> (177)
<223> n equals a,t,g, or c
<220>
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<222> (182)
<223> n equals a,t,g, or c
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ctggncagat cagcnagggn tcgnccttgg ccccggcccc tccccaagtn cctgccccag 120
gttccagccc ctgcccntgn tnccagcnat ggtatcagct ctggcccagg ccccagnccc 180
tntgcccag
<210> 395
<211> 349
<212> DNA
<213> Homo sapiens
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373

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<221> misc feature
<222> (286)
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<221> misc feature
<222> (299)
<223> n equals a,t,g, or c
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<222> (315)
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<220>
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<222> (335)
<223> n equals a,t,g, or c
<220>
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<222> (337)
<223> n equals a,t,g, or c
<400> 395
gcacgagctg accgccaagt atctcaacta ctatcggggg atgctggacg tcgcccatga 60
gcaggtggac ttcaaggact tctacccggc catagcagtg aatgatgtgc gccaggctgc 120
ccgcagcgcc gccagctaca tgctcttcga ccccaaggac agcgtcatgc agcagaacct 180
ggtgtattac cggttccacc gggctcgctg gggcctggaa gaggaggact tccagccccg 240
ggaggaggcc atgctctacc acaaccagac cgccgagctg cgggantgct ggagttcanc 300
cacatgtacc tgcanttaag atgatgaaat tggancnggg aaggaaaca
<210> 396
<211> 304
<212> DNA
<213> Homo sapiens
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<222> (236)
<223> n equals a,t,g, or c
<220>
<221> misc feature
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<222> (239)

374

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<223> n equals a,t,g, or c
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<222> (260)
<223> n equals a,t,g, or c
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<221> misc feature
<222> (263)
<223> n equals a,t,g, or c
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cctgacaggc cctgggccaa gcccgaggac ccttctctcc tggaggatcc caggatcaag 60
gcgatcgcag ccaagcacaa taaaactaca gcccaggtcc tgatccggtt ccccatgcag 120
aggaatgggg gtggatcccc aagtctgtga caccagaacg cattgctgag aactttaagg 180
tcttttgact ttgaactgag cagccaggat atgancacct tactcagcta caacangant 240
gaaggtettg ttgetgtttn agntgtteet eecacaagga ttaecettea taaaaatttt 300
ggaa
<210> 397
<211> 349
<212> DNA
<213> Homo sapiens
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<222> (161)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (285)
<223> n equals a,t,g, or c
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<223> n equals a,t,g, or c
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<222> (315)
<223> n equals a,t,g, or c
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<220>

375

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<222> (318)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (345)
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agggeactga geoegaggeg atgeteeagg tgetgggeee caageegget etgeetgeag 120
gtaccganga caccgccaag gaggatgcgg ccaaccgcaa nctggccaag ctctacaagg 180
tetecaatgg tgeatggace atgteegtet eeeteetgge tgatgaaaac cetteegeea 240
aggggcctga aattcagaag actgcttcat cctggaccac gcaanatngg aaatctttgt 300
                                                                   349
cttgaaaggc aacangcnac acgaagaaaa gaaaggtgcc tccanacca
<210> 398
<211> 638
<212> DNA
<213> Homo sapiens
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<220>
<221> misc feature
<222> (12)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (20)
<223> n equals a,t,q, or c
<220>
<221> misc feature
<222> (21)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (37)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (302)
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<223> n equals a,t,g, or c

376

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<222> (391)
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<220>
<221> misc feature
<222> (445)
<223> n equals a,t,g, or c
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<221> misc feature
<222> (495)
<223> n equals a,t,g, or c
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<221> misc feature
<222> (515)
<223> n equals a,t,g, or c
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<221> misc feature
<222> (523)
<223> n equals a,t,g, or c
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<221> misc feature
<222> (540)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (543)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (560)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (563)
<223> n equals a,t,g, or c
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<221> misc feature
<222> (578)
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<223> n equals a,t,g, or c

377

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<220>
<221> misc feature
<222> (624)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (636)
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tagcctcata nnggacaaan nggatcccgc gtgacgnccg tctaaatatg gatccccggc 60
gcagattegc acagggagac aggactegat gacagacagg caggtetegt gagggaacgg 120
gggccgggac ttcgtaagga gagacctggc cataagggac acctttgtga atgcctctcg 180
gaccetgtac ageageagec ecagagteet aageaacaac agtgacgeca acttggaget 240
catcaacacc tgggtggcca agaacaccaa caacaagatc agccggctgc tagacagtct 300
gncctccgat acccgccttg tcctcctcaa tgctatccta cctgagtgcc aagtggaaga 360
caacatttga tcccaagaaa ccagaatgga nccctttcac ttcaaaaact cagttataaa 420
gtgcccatga tgaatagcag aagtnoctgt gggccatttc attgaccaac tttgaagcca 480
aggtggggag tgcantctcc acaatctgag tttgngatct ggnccccaga cctgaaacan 540
cgnttttaaa catgggacan ggnctagccc ttctgttnaa aggcatcatg gggaaactgg 600
gatgtccaag tccagccaaa agtngttact tcccgnat
<210> 399
<211> 245
<212> DNA
<213> Homo sapiens
<220>
<221> misc feature
<222> (4)
<223> n equals a,t,g, or c
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<221> misc feature
<222> (26)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (31)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (42)
<223> n equals a,t,g, or c
<220>
<221> misc feature
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<222> (53)

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<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (67)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (100)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (115)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (126)
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<222> (150)
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<223> n equals a,t,g, or c
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<222> (197)
<223> n equals a,t,g, or c
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<222> (224)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (231)
<223> n equals a,t,g, or c
<400> 399
tggngaccaa catggccttt teccenttea neategeeag entecttace cangteetge 60
tcggggntgg ggataacacc aaaacaaacc tggagagcan cctctcttac cccanggact 120
tcaccnatgt ccaccaagcc ctgaagggcn tcacaaccaa aggtgtcacc tcagtctctc 180
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aaatottoca ntgocongaa otggocataa gggaccottt gtgnaatgoo notoggacco 240
tgttc
<210> 400
<211> 364
<212> DNA
<213> Homo sapiens
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<222> (290)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (292)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (293)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (331)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (349)
<223> n equals a,t,g, or c
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gggctagaca cgggagaata cttttgcacc cacaatgact cccgtggact ggagaccgat 120
gagcggaaac ggctctacat ctttgtgcca gaagctacat ctgcaaaacc accattgggg 180
acagggaggt ggatrctgat gcctactatg tctacagact ccagggtgag ccccctttct 240
ggcctgatgc tcagcagagt gttcatccat caacgtctct gtggaacgcn tnnaggactg 300
tggtccgcca ggtggagaac atcaccttca ngtgcattgt ggatcgggna tgaggtgtca 360
attt
<210> 401
<211> 409
<212> DNA
<213> Homo sapiens
<220>
<221> misc feature
<222> (3)
<223> n equals a,t,g, or c
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380

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<220>
<221> misc feature
<222> (35)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (379)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (391)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (405)
<223> n equals a,t,g, or c
<400> 401
ttnagageeg gaetaggace agggeeetgg geetnteeae acteeceatg gagaagetgg 60
eggeetetae agageeceaa gggeetegge eggteetggg eegtgagagt gteeaggtge 120
ccgatgacca agactttcgc agcttccggt cagacgggct acctcatcca gagcacaggg 180
cccaagaget gegteateae etacetggee caggtggace ccaaaggete ettacecaag 240
tgggtggtga ataaatcttc tcagttcctg gctcccaagg ccatgaagaa gatgtacaag 300
gegtgeetea agtaceeega gtggaaacag aageaeetge eteaetteaa geegtggetg 360
                                                                   409
cacceggage agagecegnt geogagectg negetgegga getgneggg
<210> 402
<211> 437
<212> DNA
<213> Homo sapiens
<220>
<221> misc feature
<222> (432)
<223> n equals a,t,g, or c
<400> 402
cccaagcagc tggaggctct gtgtgtggga gcagcgactg gacccagagc catgtggctg 60
tgccctctgg ccctcaacct catcttgatg gcagcctctg gtgctgtgtg cgaagtgaag 120
gacgtttgtg ttggaagece tggtateece ggeacteetg gateecaegg cetgeeagge 180
agggacggga gagatggtgt caaaggagac cctggccctc caggccccat gggtccacct 240
ggagaaatgc catgtcctcc tggaaatgat gggctgcctg gagcccctgg tatccctgga 300
gagtgtggag agaaggggga gcctggcgag aggggccctc cagggcttcc agctcatcta 360
gatgaggagc tccaagccac actccacgac tttagacatc aaatcctgca gacaagggga 420
gccctcagtc tncaggg
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<210> 403

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<211> 203
<212> DNA
<213> Homo sapiens
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<222> (152)
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<222> (161)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (163)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (182)
<223> n equals a,t,g, or c
<400> 403
cacaacacag gtgtcgtgaa aactacccct aaaagccaaa atgggaaagg aaaagactca 60
tatcaacatt gtcgtcattg gacacgtaaa ttcgggcaag tccaccacta ctggccatct 120
tatctatata tgcggtggct tcnacaaaaa ancctttgaa nantttgaaa aggaggctgc 180
tnatatggga aagggctcct cca
<210> 404
<211> 383
<212> DNA
<213> Homo sapiens
<220>
<221> misc feature
<222> (228)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (262)
<223> n equals a,t,g, or c
<220>
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<221> misc feature

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<222> (279)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (299)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (303)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (308)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (351)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (368)
<223> n equals a,t,g, or c
<400> 404
ggaccocgct gagtacaacc tgcgctcgcg caccgtgctg tgcgggacct gcgggcagcc 60
tgccgacaag gcatctgcca gcggctcagg agcccagagc ccccagaact gcagcatcat 120
gtaatctggg acctgccagg caggggtggg ggtggaggct tcctgcgtcc tcctcacctc 180
atgcccaccc cctgccctgc acgtcatggg agggggcttg aagccaanga aaaataaccc 240
tttggttttt ttcttctgta tnttttttc taagagaant attttctaca gtggttttna 300
tantgaanga aaaacacaag caaaaaaaaa aaaaaagggc ggccgctcta naggatccaa 360
agcttacnta cgcgtgcatg cga
                                                                   383
<210> 405
<211> 433
<212> DNA
<213> Homo sapiens
<220>
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<222> (21)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (23)
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<223> n equals a,t,g, or c
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<222> (25)
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<221> misc feature
<222> (172)
<223> n equals a,t,g, or c
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<221> misc feature
<222> (173)
<223> n equals a,t,g, or c
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<221> misc feature
<222> (208)
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<222> (268)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (298)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (384)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (405)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (406)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (416)
<223> n equals a,t,g, or c
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<220>

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<221> misc feature
<222> (428)
<223> n equals a,t,g, or c
<400> 405
ggcacgagct gatagctgta ngngnctgag gcagccatgt tccaccgcaa gctgtttgaa 60
gaacttgtgc gagcctcaag tcactccaca gacctcatgg aagccatggc catgggcagc 120
gtggaggctt cttattaagt gtttagcagc agctttgata gttctgacgg anntgggcag 180
gtctgctcac caggtggcca gataccgncc acgtgccccc atcattgctg tggacccggg 240
aatccccaga cagttcgtca aggcccanct tttaccgtgg gcatctttcc ctgtgctntt 300
gcaaggaccc cattccagga ggccttggtt ttaggacgtg ggaccttccg gtggaacttt 360
tgccatgatt tttgggaaag gccnagtttt tttcaagaag ggganntggt caattngttt 420
                                                                  433
gaccgttngg gcc
<210> 406
<211> 429
<212> DNA
<213> Homo sapiens
<220>
<221> misc feature
<222> (391)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (399)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (406)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (426)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (428)
<223> n equals a,t,g, or c
<400> 406
ctacaaattt catgagcact gtagccacaa gtctgacatc gaaatccatt gagaagaact 60
tcaagtagat ttcctggatc atgttcccct cacaacacac aactttgctc ggaagacgtt 120
cctgaagett gccttctgtg acatctgtca gaaattcctg ctcaatggat ttcgatgtca 180
gacttgtggc tacaaatttc atgagcactg tagcaccaaa gtacctacta tgtgtgtgga 240
```

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```
ctggagtaac atcagacaac tcttattgtt tccaaattcc actattggtg atagtggagt 300
cccagcacta ccttctttga ctatgcgtcg tatgcgagag tctgttccaa ggatgcctgt 360
aagttctcag cacagatatt ctacacctca ngccttcanc tttaanacct ccagtccctc 420
atctgnang
<210> 407
<211> 270
<212> DNA
<213> Homo sapiens
<220>
<221> misc feature
<222> (56)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (74)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (134)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (146)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (148)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (207)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (215)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (220)
<223> n equals a,t,g, or c
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<220>

386

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<221> misc feature
<222> (221)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (251)
<223> n equals a,t,g, or c
<400> 407
cgccagaccg ccgccgcgcc gccatcatgg acaccagccg tgtgcagcct atcaanctgg 60
ccagggtcac caangtcctg ggcaggaccg gttctcaggg acagtgcacg caggtaatcg 120
ggtggggca tttngccgac tgccgncnac ctaaaccctg atgtgacctc taccctgccc 180
taacccctgc cagccggaat ccggganccg attencattn natcacaggg ttctgatggt 240
tccctttaac natctgtatt ctggccccga
<210> 408
<211> 655
<212> DNA
<213> Homo sapiens
<220>
<221> misc feature
<222> (214)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (268)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (295)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (329)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (401)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (404)
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<223> n equals a,t,g, or c

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<220>
<221> misc feature
<222> (497)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (508)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (511)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (517)
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<220>
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<222> (568)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (572)
<223> n equals a,t,g, or c
<220>
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<222> (610)
<223> n equals a,t,g, or c
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<222> (633)
<223> n equals a,t,g, or c
<220>
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<222> (654)
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cgggggggtg tcagtacctg cgctgtggag tgaagtgaac cggtatggcc agaacggcga 120
cttcacgcgc gctctcaaga ccgtcaataa gatactacag atcaacaaag atgacgtaac 180
tgccctgcat tgtaaagtgg tatgccttat ccanaatgga agtttcaagg aagctttgaa 240
tgtcatcaat actcacacca aagtgttngc caataactct ctctcctttg aaaangcata 300
```

```
ttgcgaatac aggctgaaac agaattgana atgccttgaa aaacaataga aagtgcccac 360
ccagcagaca gacaaactga aaggaacttt atggacaatt nttnttccgt ttgggaaagc 420
ttttaataaa tgcttaacaa tgttttaaaa tttcttccga aactccccca ataattttaa 480
taaggaaaag gaaaacnacc tttccccntt nttgcantcc aaacattgga aaattggtcc 540
caaaaactgg cccccaaaag gcattaantt tntaaacttt ttttttttt ggccggccct 600
taaccccctn aatccccaaa ttaaattttg conccctttc caaaaattgg gagna
<210> 409
<211> 376
<212> DNA
<213> Homo sapiens
<220>
<221> misc feature
<222> (223)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (246)
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<220>
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<222> (250)
<223> n equals a,t,g, or c
<220>
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<220>
<221> misc feature
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<220>
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<222> (291)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (361)
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<220>
<221> misc feature
<222> (364)
<223> n equals a,t,g, or c
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<400> 410

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gaacctgatg gggagatatg gggacaataa ccacagtcag ggcgttaact ggttccactg 60 gaagggccac gaacactcaa tccagtttgc tgagatgaag ctgagaccaa gcaacttcag 120 aaatottgaa qgcaggcgca aacgggcata aattccaqqq accactgggt gagagaggaa 180 taaggcccag agcgaggaaa ggattttacc aaagcatcaa tacaaccagc ccaaccatcg 240 gtccacacct gggcatttgg tgagagtcaa agctgaccat ggatccctgg ggccaacggc 300 aacagcatgg gcctcacctc ctctgtgatt tctttctttg caccaaagac atcagtctcc 360 aacatgtttc tgttttggtg gttgattcag caaaaatctc cagtgacaac atcgcaatag 420 ttttttactt ctcttaggtg gctctgggaa tgggagaagg gtaggatgtc aggggtagtt 480 tggtttagaa ccagccgtat ttacatgaac tggataatta atggcattat tttggtagca 540 aagattaaag gggcattgga agccatccct tttttacatt tnatccacag aaaccagaaa 600 agcaatactg gttccattta aggntatgat taatatatta atntantaan g <210> 411 <211> 392 <212> DNA <213> Homo sapiens <220> <221> misc feature <222> (199) <223> n equals a,t,g, or c <220> <221> misc feature <222> (210) <223> n equals a,t,g, or c <220> <221> misc feature <222> (220) <223> n equals a,t,g, or c <220> <221> misc feature <222> (354) <223> n equals a,t,g, or c <220> <221> misc feature <222> (355) <223> n equals a,t,g, or c <220> <221> misc feature <222> (385) <223> n equals a,t,g, or c <220> <221> misc feature <222> (388)

<223> n equals a,t,g, or c

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<222> (391)
<223> n equals a,t,g, or c
<400> 411
ggttatccgc gatgcgtttc ctggcagcta cattcctgct cctggcgctc agcaccgctg 60
cccaggccga accggtgcag ttcaaggact gcggttctgt ggatggagtt ataaaggaag 120
tgaatgtgag cccatgcccc acccaacct gccagctgag caaaggacag tcttacagcg 180
tcaatgtcac cttcaccanc aatattcaan ctaaaagcan caaggccgtg gtgcatggca 240
tcctgatggg cgtcccagtt ccctttccca ttcctgagcc tgatggttgt aagagtggaa 300
ttaactgccc tatccaaaaa gacaagacct atagctacct gaataaacta ccanngaaaa 360
gcgaatatcc ctctataaaa ctggnggngg na
<210> 412
<211> 645
<212> DNA
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<220>
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<222> (477)
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<220>
<221> misc feature
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<222> (611)
<223> n equals a,t,g, or c
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<400> 412

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gatttatctt cacaaagtgg ctccaggatg tatttaacgt gcccttggtc atccagatga 60
cggatgacga gaagtatctg tggaaggacc tgaccctgga ccaggcctat agctatgctg 120
tggagaatgc caaggacatc atcgcctgtg gctttgacat caacaagact ttcatattct 180
ctgacctgga ctacatgggg atgagctcag gtttctacaa aaatgtggtg aagattcaaa 240
agcatgttac cttcaaccaa gtgaaaggca ttttcggctt cactgacagc gactgcattg 300
ggaagatcag ttttcctgcc atccaggctg ctccctcctt cagcaactca ttcccacaga 360
tottocgaga caggacggat atccagtgoo ttatcccatg tgccattgac caggatcctt 420
actttagaat gacaagggac gtngcccca ggatcggcta tcctaaacca gccctgntga 480
ctccaccttc ttcccagccc tgcanggcgc ccagaccaaa atgagtgcca gcgacccaa 540
ctcctccatc ttcctnaccg acacggncaa gcagatcaaa accaaggtca ataagcatgc 600
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<210> 413
<211> 540
<212> DNA
<213> Homo sapiens
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<220>
<221> misc feature
<222> (7)
<223> n equals a,t,g, or c
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<222> (9)
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<222> (240)
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<220>
<221> misc feature
<222> (370)
<223> n equals a,t,g, or c
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<220>
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<222> (374)
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<222> (385)
<223> n equals a,t,g, or c
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<222> (386)
<223> n equals a,t,g, or c
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<222> (408)
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<220>
<221> misc feature
<222> (479)
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<223> n equals a,t,g, or c

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<220>
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<222> (480)
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<222> (496)
<223> n equals a,t,g, or c
<220>
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<222> (533)
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ccggccctgt gattccggag tcccctttga accatcgaag cctccagtca ttgaggggct 120
gagcccactg tttacaggaa tccagagagt ttcaaggaaa agttcgttcg caagacccgc 180
gagaancegg tggtacceat aggttgcetg gccaeggegg cegeceteae etacggeetn 240
tactccttcc accgggggca acagccagcg ctcttcagct catgatgcgc acccggatcg 300
ccgcccaggt ttcaaggttc gcagccatct tgctgggtct gggtgttcat gctatgnaat 360
tttcgaaccn taanccaggt ttggnnttga aaagtncgca gaaatggntt ccaaaancca 420
gggagcaaac aatgggccct acntngggat ttattccctc ntttcttttg aaaggcccnn 480
ttttcgttgg ggaagnaatt gaacctttgt gtaatgttaa cgaaaatttt ttnaaaatcc 540
<210> 414
<211> 90
<212> DNA
<213> Homo sapiens
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<221> misc feature
<222> (10)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (66)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (79)
<223> n equals a,t,g, or c
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<220>
<221> misc feature
<222> (88)
<223> n equals a,t,g, or c
<400> 414
aaaaanaaaa aaaaaaaang gggaaaangg
<210> 415
<211> 461
<212> DNA
<213> Homo sapiens
<220>
<221> misc feature
<222> (298)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (327)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (335)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (402)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (422)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (427)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (430)
<223> n equals a,t,g, or c
<220>
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<221> misc feature

396

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<222> (433)
<223> n equals a,t,g, or c
<400> 415
gaagctgggg gtagggtggg ggtggggaga acacttaaca acatggggac cagtcagggg 60
aatcccctta tttctgtttt gcatatgagg aaccctagag cagccaggtg aggctctcta 120
gtttaataaa aatcatggaa agactcttaa tgcagactct tcttaagtgt taatagggat 180
tttttcagct tattttggtt gcagtttcca atttttaaaa atgttggagg taatctttcc 240
caccttccca aaccttaatt cttggtagat ggcattagtg ttggaaccaa tgctttcntc 300
atgtetteaa ttetttggta tatggentte etttneagat gtatttaaac aaacaaaaac 360
cctttaaaaa aaaaaaaaa aacccggggg ggggggcccg gnaacccatt ccccccaaaa 420
gnggagnggn atnacattca cgggccgggg tttaacagtg t
<210> 416
<211> 289
<212> DNA
<213> Homo sapiens
<220>
<221> misc feature
<222> (4)
<223> n equals a,t,g, or c
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<222> (5)
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<220>
<221> misc feature
<222> (7)
<223> n equals a,t,g, or c
<220>
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<222> (9)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (11)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (15)
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<220>
<221> misc feature
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<222> (26)

397

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<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (31)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (34)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (36)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (38)
<223> n equals a,t,g, or c
<220>
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<222> (40)
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<222> (97)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (105)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (122)
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<223> n equals a,t,g, or c

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<220>
<221> misc feature
<222> (155)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (220)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (234)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (246)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (271)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (278)
<223> n equals a,t,g, or c
<400> 416
caannantno nttantaaco ccaatngtaa noonananan ggcatgotca taanggaaan 60
ggtaaaaaaa gtaaaaggga actcgggcaa atcttanccc gcctntttac caaaaacatc 120
anctctagca tcaccagtat tagaggcacc ggctngccca gtggacacat gtttaacggg 180
ccgcgggtac cctaaccgtg gcaaaggtta gcataatcan tgttccttaa ttangggacc 240
tgtatngaat ggcttccacg agggtttcag ncgtctcntt actttttaa
                                                                  289
<210> 417
<211> 146
<212> DNA
<213> Homo sapiens
<220>
<221> misc feature
<222> (2)
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<220>
<221> misc feature
<222> (12)
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<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (18)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (32)
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<220>
<221> misc feature
<222> (83)
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<220>
<221> misc feature
<222> (104)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (110)
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<220>
<221> misc feature
<222> (123)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (140)
<223> n equals a,t,g, or c
gnagctttag gnaaccgntt tggtgctggt cntggtaggc ggctatggtt ttggaaggtg 60
gtgccggtag tggatttggt ttnggccggt ggagtggtgg tggntttggn cttggtggcg 120
gantgtgttt tggaggtggn ttcggt
                                                                   146
<210> 418
<211> 400
<212> DNA
<213> Homo sapiens
<220>
<221> misc feature
<222> (17)
<223> n equals a,t,g, or c
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<220>
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<222> (59)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (71)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (76)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (106)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (146)
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<220>
<221> misc feature
<222> (161)
<223> n equals a,t,g, or c
<220>
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<222> (162)
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<220>
<221> misc feature
<222> (165)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (169)
<223> n equals a,t,g, or c
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<222> (223)
<223> n equals a,t,g, or c
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<222> (228)
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<222> (237)
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<222> (356)
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<220>
<221> misc feature
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<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (381)
<223> n equals a,t,g, or c
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<220>

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<221> misc feature
<222> (399)
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<400> 418
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tatacgattg naaggnttat gtcactaaag atttttattc tgattntttc ataatcaaag 120
gtcatatgag actggtagag acaagntttg tagtgaagta nngtngcant aatttctgta 180
cctgatcaag tttattgcag cctttctttt cctatttctn ttntttangg gttantntna 240
acaaatggca atgagtagaa aagttaacat gaagatttta gaaggagaga acttacatga 300
cacagatttg tgagtctgtg actgtgacac tattgnatgt gattgtaaaa gctttnattg 360
agcattgnca aatttgtaag nttcataggg atggacatna
<210> 419
<211> 282
<212> DNA
<213> Homo sapiens
<220>
<221> misc feature
<222> (13)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (156)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (184)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (203)
<223> n equals a,t,g, or c
<400> 419
ccccttgcaa acneteccag cactgcacce caggcageca etettageet tggcettega 60
catgagatgg agccctcctt attccccatc aggatgagca atcctggcca agcataatga 120
cagagagagg cagacttcgg ggaagccctg actgtncaga gctaaggaca cagtggagat 180
tctntggcac tctgaggtct ctntggcagg cctggtcagg ctctccatga ggttagaagg 240
ccaggtagtg ttccagcagg gtggtggcca agccaacccc at
                                                                  282
<210> 420
<211> 508
<212> DNA
<213> Homo sapiens
<220>
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<222> (67)
<223> n equals a,t,g, or c
<220>
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<222> (277)
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<220>
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<222> (306)
<223> n equals a,t,g, or c
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<222> (311)
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<220>
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<222> (351)
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<220>
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<222> (383)
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<222> (386)
<223> n equals a,t,g, or c
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<221> misc feature
<222> (406)
<223> n equals a,t,g, or c
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<221> misc feature
<222> (413)
<223> n equals a,t,g, or c
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<221> misc feature
<222> (414)
<223> n equals a,t,g, or c
<220>
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<221> misc feature

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<222> (415)
<223> n equals a,t,g, or c
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<221> misc feature
<222> (439)
<223> n equals a,t,g, or c
<220>
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<222> (451)
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<222> (484)
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<220>
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<222> (490)
<223> n equals a,t,g, or c
<400> 420
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atctgtnagt tctgagaggc atttaggcca tgggacaggg aggacgctct ctggccttcg 120
gctccatcct gaggctccac ttggtctgtg agatgctaga actccctttc aacagaattc 180
acttgtggct attgggactg gaggcaccct tagccacttc attcctctga tgggccctga 240
ctcttcccca taatcactga ccagccttga cactccnttg caaattttcc agcactgaac 300
ccaggnagca ntcttagcct tggcttcgac atgagatgga gcctcttatt nccatctggt 360
ccagttcctt aattacagat ggnagnatta gggtttgggt agaagncctc aannnaaaaa 420
agggctgctt ctggtcctna gttttttttg naaccagtgc attaggtgga atctggcaga 480
tatnnagagn gagatttggg gagcttat
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<211> 236
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<220>
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<223> n equals a,t,g, or c

<223> n equals a,t,g, or c

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tcttggagcc tgaaaagaag cnggagcnnn gactggtacc cananccatg tggctgtgcc 120
ctgctggccc tnnaaccnca tcttgtatng gcagnttctg gtgctgcgtg cgaatnnaag 180
gnacgtttgg tnttggaagc cctgntatcc ccggcactcc tggatcccac ggnctg
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<211> 381
<212> DNA
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<220>
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<222> (268)
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<222> (328)
<223> n equals a,t,g, or c
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<222> (332)
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<220>
<221> misc feature
<222> (339)
<223> n equals a,t,g, or c
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<222> (344)
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<222> (364)
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antacaccca gatggcctga agcaactgaa gatccacaaa agaagtgaaa atagccagtt 120
cctgccttaa ctgatgacat tccaccattg tgaatttgtt cctgccccac cctaactgat 180
caattgacct tgtggacaat acaccttccc cacccttgag aaggtgcttt gtaatattnt 240
neceaeceae eccaeggee gaaceengg nacentttga ggaaggtntt ttggtaatat 300
tgctntgcgg gnattggagg aatgtggntt tngtaaagnt tgcnagcncg ttgggnccac 360
naanaattgg gttggttaaa t
<210> 423
<211> 429
<212> DNA
<213> Homo sapiens
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<222> (118)
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<400> 423
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tttttaggga gaaaaataaa tatatgctgt agtggccaca aataggccta tgatttanct 120
ggcaggccag gttttctcaa gagcaaaatc accctctggc cccttggcag gtaaggcctc 180
ccggtcagca ttatcctgcc agacctcggg gaggatacct gggagacaga agcctctgca 240
cctactgtgc agaactctcc acttccccaa ccctccccag gtgggcaggg cggagggagc 300
ctcagcctcc ttagactgac ccctcaggcc cctaggctgg ggggttgtaa ataacagcag 360
tcaggttgtt taccagccct ttgcacctcc ccaggcagag ggagcctctg ttctggtggg 420
ggccacctc
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<212> DNA
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<222> (232)
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<222> (312)
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<220>
<221> misc feature
<222> (319)
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<220>
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<222> (332)
<223> n equals a,t,g, or c
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<222> (422)
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<222> (425)
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<222> (426)
<223> n equals a,t,g, or c
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gggagtcacc caggacccgg gcagtcgcct ttccccagct cctaaggctc ccggccttcc 120
ctgctgaaac agcaagacca qtgggttggc gtgggaggcc tgggcttcaa accacctctg 180
cnatcacctg gctgtnggtc cccaagcagg acatacacac agtccctctc tngccctcat 240
cctcctncaa gtgnaaagga aaagccaagt taaaanggct cttgggacca tggttancna 300
gctttttccc tnnaccctng gccttgccaa nngccaggtt aaaaaaaact taagttccaa 360
aacggccttt taacgccttc ctcggaaata cttccactgg tggaccaagg gccccagcct 420
gngtnngctt gtttgtttaa a
<210> 425
<211> 419
<212> DNA
<213> Homo sapiens
<220>
<221> misc feature
<222> (7)
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<222> (68)
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<220>
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<222> (336)
<223> n equals a,t,g, or c
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<222> (350)
<223> n equals a,t,g, or c
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<221> misc feature
<222> (368)
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<220>
<221> misc feature
<222> (385)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (417)
<223> n equals a,t,g, or c
<400> 425
cccacgngtt cgagacagga aaaaaagcaa cttttccaac atacaattta cttttaataa 60
agtatganta tttcattttg agaacattcc ctggaattgc cacataattc attaaaaaca 120
tttttttaag caacacttgg gaacagtgtt tactttaaat cettaatggc cttaattaat 180
tctnaqattc ctgccccatc acttacagaa ccaattcact ttagagtgac taaaaggaaa 240
cgatagccta gctttctaaa gccacgctgt gtccctcaat tacagagggt aggaatgggt 300
ataactetta actgtggcaa agcagagtgg aaattncaat ttcataggan taaacaactg 360
ctgggggnat attccgtgcc caggnaaagg gaaaattttc tgggcaaata ttttgtnca 419
<210> 426
<211> 407
<212> DNA
<213> Homo sapiens
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<222> (229)
<223> n equals a,t,g, or c
<220>
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<221> misc feature
<222> (240)
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<221> misc feature
<222> (336)
<223> n equals a,t,g, or c
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<222> (400)
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<222> (406)
<223> n equals a,t,g, or c
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<221> misc feature
<222> (407)
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gcttactacc agacaacctt agccaaacca tttacccaaa taaagtatag gcgatagaaa 60
ttgaaacctg gcgcaataga tatagtaccg caagggaaag atgaaaaatt ataaccaagc 120
ataatatagc aaggactaac ccctatacct tctgcataat gaattaacta gaaataactt 180
tgcaaggaga gccaaagcta agaccccga aaccagacga gctacctgng aaacagctgn 240
aagagcacac ccgtctatqt agcaaaatag tgggaagatt tataggttga ggcgacaaac 300
ctaccgagcc tggtgatagc tggttgtcca agatanaatc ttagttcact ttaaatntgc 360
ccacagaacc ctctaaatcc ccttgtaaat ttaactgttn aaaaann
<210> 427
<211> 423
<212> DNA
<213> Homo sapiens
<220>
<221> misc feature
<222> (315)
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<222> (344)
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<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (356)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (358)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (364)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (422)
<223> n equals a,t,g, or c
<400> 427
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togotatact tgagactaga tgacaaataa atgttattca agattgagtt ctcactagtg 120
tttttttaat cctaaaaaag taatgttttg attttgtgac agtcaaaagg acgtgcaaaa 180
gtctagcctt gcccgagctt tccttacaat cagagcccct ctcaccttgt aaagtgtgaa 240
tegecettee ettttgtaca gaagatgaae tgtattttge attttgteta ettgtaagtg 300
aatgtaacat actgncaatt ttccttgttt gaatatagaa tggnaacact acacgngnac 360
attnccagag cctggggtat attgccaatg aactttttgc aagcacactt gtaaccaaat 420
                                                                   423
gng
<210> 428
<211> 378
<212> DNA
<213> Homo sapiens
<220>
<221> misc feature
<222> (14)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (338)
<223> n equals a,t,g, or c
<400> 428
geggaggttt cagngtagaa ggtgatgtca getecagete eeetetgteg gtggtgggge 60
ctcaccttga agagggaagt ctcaatatta ggctaagcta tttgggaaag ttctccccac 120
cgcccctgta cgcgtcatcc tagccccct taggaaagga gttagggtct cagtgcctcc 180
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agccacacco cotgoettee coagettgee cattlecetg coccaaggee cagageteee 240 cccagactgg agagcaagcc cagcccagcc teggcataga ecceettetg gteegeeegt 300 ggctcgattc ccgggattca ttcctcagcc tctgcttntc ccttttatcc caataagtta 360 ttgctactgc tgtgaagg <210> 429 <211> 92 <212> DNA <213> Homo sapiens <220> <221> misc feature <222> (23) <223> n equals a,t,g, or c <220> <221> misc feature <222> (70) <223> n equals a,t,g, or c <220> <221> misc feature <222> (75) <223> n equals a,t,g, or c <220> <221> misc feature <222> (76) <223> n equals a,t,g, or c <220> <221> misc feature <222> (77) <223> n equals a,t,g, or c <400> 429 ggcacagtgg cagtgtagcg agnaaaggtt ttcgcctcct gtttcagcgg tgacggctct 60 tgggttttcn cgggnnngct ttttaatttt ag <210> 430 <211> 410 <212> DNA <213> Homo sapiens <220> <221> misc feature <222> (343) <223> n equals a,t,g, or c <220> <221> misc feature

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<222> (368)
<223> n equals a,t,g, or c
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gcaaaaactt aaatctccag gctttttaaa gcacaaaata taaataaaag ctgggaaagt 60
aaaccaaaat tetteagatt gtteeteatg aatateeeee tteetetgea atteteeaga 120
gtggtaacag atgggtagag gcagctcagg tgaattaccc agcttgcctc tcaattcatt 180
cotcototto ototoaaagg otgaaggoag ggootttoca gtootoacaa cotgtootto 240
acctagtccc tcctgaccca gggatggagg ctttgagtcc cacagtgtgg tgatacagag 300
cactagttgt cactgcctgg ctttatttaa aggaatgcag tangcttcct ctgtagagct 360
ctgaaaangt tgactatata gaagtcttgt atgtttttac ttgggtaaga
<210> 431
<211> 611
<212> DNA
<213> Homo sapiens
<220>
<221> misc feature
<222> (285)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (327)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (349)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (396)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (400)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (472)
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<220>
<221> misc feature
<222> (483)
<223> n equals a,t,g, or c
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<222> (494)
<223> n equals a,t,g, or c
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<222> (525)
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<222> (536)
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<222> (563)
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<220>
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<222> (583)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (605)
<223> n equals a,t,g, or c
<400> 431
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cctgcttcag tgaaataatt acagaatata cttagaaagg caaagtacat tgtaaaataa 120
agttgagctt agttttttt aaaaaaaaaa acaaagcaac aaattaacta gatacagaat 180
aatggagaac aagttgttaa aacatttaat attatatagg atattgctaa ttgtgtatat 240
gttggtttaa ttaataatat gtactaagaa tgtccttatt cttgnggtta aaaacctgcc 300
taaattaaat tgggcttcaa tcactgnaac ctgattcatc ctgggatgna aaccattcga 360
agtcagctaa ttggactttt atggctctat cttttncttn agtgaagaac cctatttaaa 420
actgggtcat caattggctg gtctaacaag gatagtcttc aggttcaatt tnctgggccc 480
tgnggtaagt tggnaacaaa tcataatgga ttaattaaaa ggttnaccat cattgnatta 540
cagcggttat tataccgggg canaattett tacttgeecc agnaatecta atteettggg 600
ggggncttgg a
                                                                   611
<210> 432
<211> 291
<212> DNA
<213> Homo sapiens
<220>
<221> misc feature
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<222> (226)
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<220>
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<222> (258)
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<220>
<221> misc feature
<222> (266)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (280)
<223> n equals a,t,g, or c
<220>
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<222> (287)
<223> n equals a,t,g, or c
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gttacatttg caaatatttc tccctatgaa taatgtagtc gatagtgtgc actctttctc 120
tetetetete teteteteae acacacaca acacacaca acacacaca acagacacgg 180
caccattctg cctggggcac tggaacacat tcctgggggt caccgntggt cagagtcact 240
aggaggttac ctgagtanct tggggnggcc taatgtctcn tgggggnttt t
                                                                   291
<210> 433
<211> 124
<212> DNA
<213> Homo sapiens
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<222> (112)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (114)
<223> n equals a,t,g, or c
<220>
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<222> (119)
<223> n equals a,t,g, or c
<220>
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<221> misc feature

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<221> misc feature
<222> (121)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (122)
<223> n equals a,t,g, or c
<400> 433
gagagagaga gagagagaga gagagagaga gagagagaga gagagagaga gngngggcna 120
nnag
<210> 434
<211> 382
<212> DNA
<213> Homo sapiens
<220>
<221> misc feature
<222> (67)
<223> n equals a,t,g, or c
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<221> misc feature
<222> (86)
<223> n equals a,t,g, or c
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<222> (106)
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<220>
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<222> (116)
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<220>
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<222> (122)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (172)
<223> n equals a,t,g, or c
<220>
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<222> (191)
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  <220>
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  <222> (228)
  <223> n equals a,t,g, or c
  <220>
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  <222> (254)
  <223> n equals a,t,g, or c
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  <222> (267)
  <223> n equals a,t,g, or c
  <220>
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  <222> (269)
<223> n equals a,t,g, or c
  <220>
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  <222> (299)
  <223> n equals a,t,g, or c
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  <222> (321)
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  <222> (328)
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  <222> (341)
  <223> n equals a,t,g, or c
  <220>
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  <222> (373)
  <223> n equals a,t,g, or c
  <400> 434
  egegteeget tgttttaaaa aaatgeacaa tttactteee aaaaaagttg ttacttgeet 60
  tttcaanttg ttgacaaaca cacatntgat attctcttat atgttntagt aatgtnacgt 120
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anaaactcaa gcctttttat tctttgtgat taaatcctgt tttaaaatgt cncaaaacag 180
gaaccagcat nctaattgga tttactatat cgagatatgg ttcaaatngg actactaaaa 240
ttcattgaac actnaaacta tgaaacnant actttttata ttagtgaaga catgggatnt 300
aacttatgga aaatccaagt ngcagganag taatttttgt ntacttttt aaccagactg 360
                                                                   382
gaatgggtga agnactagtg cg
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<211> 323
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<220>
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<222> (323)
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<400> 435
geogaggtee eegegeeaga gaegeageeg egeteecace acceacace accegegeeet 60
cgttcgcctc ttctccggga gccagtccgc gccaccgccg ccgcccaggc catcgccacc 120
cteegeagee atgteeacea ggteegtgte etegteetee tacegeagga tgtteggeag 180
cccgggcacc gcgagccggn cgagctcanc gggagctacg tgactacgtc acccgcacct 240
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acagectgng cagegegetg agececaach neageegeae etetaceete gnteeeggge 300
ggcgtgtatg ccacgcgctc ctn
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<212> DNA
<213> Homo sapiens
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<222> (403)
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catagootgt attgaattca cacattcaaa tgaggottta ccagtaatga tggggattaa 120
tacagagcta gtgtttggca tttgacttta tctcaaatga gctaactgct caatgaatta 180
tattgacata tatatttact ccaaatttta catttagtga aataagaata tctctagtag 300
ctcagttaac atncaaccag gaaagcttca aaaagatgat tctgaaaatg gcaggcaaaa 360
tttcttttta ttgtaggcaa ttcttaaact ggaaatttgg ctntatgcat aataagtcat 420
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gtgggtaaaa catccacctt gcagttaggg tnccagnatc ctaaccttnc taatttattt 480
ctnttaggcc aantggacca ttt
                                                             503
<210> 437
<211> 77
<212> DNA
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<220>
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<220>
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<222> (77)
<223> n equals a,t,g, or c
<400> 437
gagagagan ntncgcn
<210> 438
<211> 424
<212> DNA
<213> Homo sapiens
<220>
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<222> (281)
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<220>
<221> misc feature
<222> (288)
<223> n equals a,t,g, or c
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<222> (387)
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<222> (392)
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cacagcccat ccatagtaac tgacatgatt agcagaagaa aggaacattt aggggcaagc 120
aggcgctgtg ctatcatgat ggaatttcat atctacagat agagagtttg ttgtgtacag 180
acttgttgtg actttgacgc ttgcgaacta gagatgtgca attgatttct tttcttcctg 240
gctttttaac tcccctgttt caatcactgt cctcccacac nagggaanga cagaaaggaa 300
attggccttc cttttttcc ttggccccct tcccccaagg cctttaaact tttggaaccc 360
caaggaaaac tgnnttggaa aaaccenttt cnengggttt gnaaaaaatt gggaaancen 420
ccca
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425

<210> 439 <211> 382 <212> DNA <213> Homo sapiens <220> <221> misc feature <222> (94) <223> n equals a,t,g, or c <220> <221> misc feature <222> (316) <223> n equals a,t,g, or c <220> <221> misc feature <222> (357) <223> n equals a,t,g, or c <220> <221> misc feature <222> (378) <223> n equals a,t,g, or c<220> <221> misc feature <222> (380) <223> n equals a,t,g, or c <220> <221> misc feature <222> (381) <223> n equals a,t,g, or c<400> 439 geccageeca gaacaggggt ggatteeca aceteaacet cetttettet etgeteecaa 60 accatgtcag gaccaccttc ctctagaget cggnageceg gagggtcttc acccactcct 120 actocagtat cagotggcac gggotoctto otgagagcaa aggtcaagga coccototgt 180 gaaggctcag cagaggtggg atcccacgcc ccctcccggc ccctccctgc cctccattca 240 gggagaaacc teteetteec gtgtgagaag ggccagaggg tecaggcate ecaagtecag 300 cgtgaagggc cacagneect cttggetgec aageacgcag ateceatgga catttgngga 360 aagggctcct tgcctgcngn ng <210> 440 <211> 231 <212> DNA <213> Homo sapiens <220> <221> misc feature

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426

<222> (143) <223> n equals a,t,g, or c<220> <221> misc feature <222> (180) <223> n equals a,t,g, or c <220> <221> misc feature <222> (186) <223> n equals a,t,g, or c<220> <221> misc feature <222> (211) <223> n equals a,t,g, or c <220> <221> misc feature <222> (218) <223> n equals a,t,g, or c <400> 440 gaagaaatca aaacaagatc acaagaatac tgaaaaatga agcctaaaat gaagtattca 60 accaacaaaa tttccacagc aaagtggaag aacacagcaa gcaaagcctt gtgtttcaag 120 ctgggaaaat cccaacagaa ggncaaagaa gtttgcccca tgtactttat gaagctccgn 180 tctggnctta tgataaaaaa ggaggcctgg nactttanga gagaaaccac c <210> 441 <211> 86 <212> DNA <213> Homo sapiens <220>

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<221> misc feature

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<222> (84)
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ctgtggtcnt ggnggacnct ttgnnt
<210> 442
<211> 541
<212> DNA
<213> Homo sapiens
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<221> misc feature
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<222> (499)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (501)
<223> n equals a,t,g, or c
<400> 442
caaacccact ccaccttact accagacaac cttagccaaa ccatttaccc aaataaagta 60
taggcgatag aaaattgaaa cctggcgcaa tagatatagt accgcaaggg aaagatgaaa 120
aattataacc aagcataata tagcaaggac taacccctat accttctgca taatgaatta 180
actagaaata actttgcaag gagagccaaa gctaagaccc ccgaaaccag acgagctacc 240
taagaacagc taaaagagca cacccgtcta tgtagcaaaa tagtgggaag atttataggt 300
agaggcgaca aacctaccga gcctggtgat agctggttgt ccaagataga atcttagttc 360
aactttaaat ttgcccacag aaccctctaa atccccttgt aaatttaact gttagtccaa 420
agaagaacag ctctttggac actaggaaaa aacttgtaga gagagtaaaa anttaacacc 480
catagtaggc taaaagcanc nccaatttaa gaaagcgttc aagctcacac ccactaccta 540
а
                                                                   541
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<211> 408
<212> DNA
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<220>
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<222> (312)
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<220>
<221> misc feature
<222> (375)
<223> n equals a,t,q, or c
<220>
<221> misc feature
<222> (387)
<223> n equals a,t,g, or c
<220>
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<222> (390)
<223> n equals a,t,g, or c
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<222> (392)
<223> n equals a,t,g, or c
<400> 443
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cgagtggaag ggagaaacgg ctcgattact caaatcccta ttctaaccat gcctaatgat 120
gatatcactc accccatccc agacttgact ggctacatta cagaggggca gatctatgtg 180
gacagacagc tgcacaacag acagatttat ccacctatca atgtgctgcc ctcactatca 240
acggttaatg aagtotgota ttggagaagg ggatgaccag gaaggatcat gccgatgtat 300
ctaaccaget tnattgeetg ctatgetatt ggaaagggat gtgcaageca tgaaagettg 360
cgttggagaa aaaancctta cttaaangan cntctctact tggaaatc
<210> 444
<211> 323
<212> PRT
<213> Homo sapiens
<400> 444
Arg Lys Lys Met Ala Leu Thr Ser Phe Leu Pro Ala Pro Thr Gln Leu
                                     10
Ser Gln Asp Gln Leu Glu Ala Glu Glu Lys Ala Arg Ser Gln Arg Ser
             20
                                 25
                                                     30
Arg Gln Thr Ser Leu Val Ser Ser Arg Arg Glu Pro Pro Pro Tyr Gly
Tyr Arg Lys Gly Trp Ile Pro Arg Leu Leu Glu Asp Phe Gly Asp Gly
                         55
Gly Ala Phe Pro Glu Ile His Val Ala Gln Tyr Pro Leu Asp Met Gly
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65					70					75					80
Arg	Lys	Lys	Lys	Met 85	Ser	Asn	Ala	Leu	Ala 90	Ile	Gln	Val	Asp	Ser 95	Glu
Gly	Lys	Ile	Lys 100	Tyr	Asp	Ala	Ile	Ala 105	Arg	Gln	Gly	Gln	Ser 110	Lys	Asp
Lys	Val	Ile 115	Tyr	Ser	Lys	Tyr	Thr 120	Asp	Leu	Val	Pro	Lys 125	Glu	Val	Met
Asn	Ala 130	Asp	Asp	Pro	Asp	Leu 135	Gln	Arg	Pro	Asp	Glu 140	Glu	Ala	Ile	Lys
Glu 145	Ile	Thr	Glu	Lys	Thr 150	Arg	Val	Ala	Leu	Glu 155	Lys	Ser	Val	Ser	Gln 160
Lys	Val	Ala	Ala	Ala 165	Met	Pro	Val	Arg	Ala 170	Ala	Asp	Lys	Leu	Ala 175	Pro
Ala	Gln	Tyr	Ile 180	Arg	Tyr	Thr	Pro	Ser 185	Gln	Gln	Gly	Val	Ala 190	Phe	Asn
Ser	Gly	Ala 195	Lys	Gln	Arg	Val	Ile 200	Arg	Met	Val	Glu	Met 205	Gln	Lys	Asp
Pro	Met 210	Glu	Pro	Pro	Arg	Phe 215	Lys	Ile	Asn	Lys	Lys 220	Ile	Pro	Arg	Gly
Pro 225	Pro	Ser	Pro	Pro	Ala 230	Pro	Val	Met	His	Ser 235	Pro	Ser	Arg	Lys	Met 240
Thr	Val	Lys	Glu	Gln 245	Gln	Glu	Trp	Lys	Ile 250	Pro	Pro	Cys	Ile	Ser 255	Asn
Trp	Lys	Asn	Ala 260	Lys	Gly	Tyr	Thr	Ile 265	Pro	Leu	Asp	Lys	Arg 270	Leu	Ala
Ala	Asp	Gly 275	Arg	Gly	Leu	Gln	Thr 280	Val	His	Ile	Asn	Glu 285	Asn	Phe	Ala
Lys	Leu 290	Ala	Glu	Ala	Leu	Tyr 295	Ile	Ala	Asp	Arg	Lys 300	Ala	Arg	Glu	Ala
Val 305	Gly	Asn	Ala	Cys	Pro 310	Ser	Arg	Glu	Lys	Asn 315	Gly	Ser	Glu	Arg	Lys 320
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Gly Lys Thr

<210> 445 <211> 640 <212> PRT <213> Homo sapiens <400> 445 Trp Val Arg Pro Thr Arg Pro Thr Leu Thr Ser Ile Cys Glu Lys Val Ile Val Pro Asn Met Glu Phe Arg Ala Ala Asp Glu Glu Ala Phe Glu Asp Asn Ser Glu Glu Tyr Ile Arg Arg Asp Leu Glu Gly Ser Asp Ile 40 Asp Thr Arg Arg Arg Ala Ala Cys Asp Leu Val Arg Gly Leu Cys Lys 55 Phe Phe Glu Gly Pro Val Thr Gly Ile Phe Ser Gly Tyr Val Asn Ser 70 Met Leu Gln Glu Tyr Ala Lys Asn Pro Ser Val Asn Trp Lys His Lys Asp Ala Ala Ile Tyr Leu Val Thr Ser Leu Ala Ser Lys Ala Gln Thr 105 Gln Lys His Gly Ile Thr Gln Ala Asn Glu Leu Val Asn Leu Thr Glu 115 120 125 Phe Phe Val Asn His Ile Leu Pro Asp Leu Lys Ser Ala Asn Val Asn 135 Glu Phe Pro Val Leu Lys Ala Asp Gly Ile Lys Tyr Ile Met Ile Phe 155 Arg Asn Gln Val Pro Lys Glu His Leu Leu Val Ser Ile Pro Leu Leu 165 170 Ile Asn His Leu Gln Ala Glu Ser Ile Val Val His Thr Tyr Ala Ala 185 His Ala Leu Glu Arg Leu Phe Thr Met Arg Gly Pro Asn Asn Ala Thr 200 205 195 Leu Phe Thr Ala Ala Glu Ile Ala Pro Phe Val Glu Ile Leu Leu Thr

Asn Leu Phe Lys Ala Leu Thr Leu Pro Gly Ser Ser Glu Asn Glu Tyr

235

Ile	Met	Lys	Ala	Ile 245	Met	Arg	Ser	Phe	Ser 250	Leu	Leu	Gln	Glu	Ala 255	Ile
Ile	Pro	Tyr	Ile 260	Pro	Thr	Leu	Ile	Thr 265	Gln	Leu	Thr	Gln	Lys 270	Leu	Leu
Ala	Val	Ser 275	Lys	Asn	Pro	Ser	Lys 280	Pro	His	Phe	Asn	His 285	Tyr	Met	Phe
Glu	Ala 290	Ile	Cys	Leu	Ser	Ile 295	Arg	Ile	Thr	Cys	Lys 300	Ala	Asn	Pro	Ala
Ala 305	Val	Val	Asn	Phe	Glu 310	Glu	Ala	Leu	Phe	Leu 315	Val	Phe	Thr	Glu	11e 320
Leu	Gln	Asn	Asp	Val 325	Gln	Glu	Phe	Ile	Pro 330	Tyr	Val	Phe	Gln	Val 335	Met
Ser	Leu	Leu	Leu 340	Glu	Thr	His	Lys	Asn 345	Asp	Ile	Pro	Ser	Ser 350	Tyr	Met
Ala	Leu	Phe 355	Pro	His	Leu	Leu	Gln 360	Pro	Val	Leu	Trp	Glu 365	Arg	Thr	Gly
Asn	11e 370	Pro	Ala	Leu	Val	Arg 375	Leu	Leu	Gln	Ala	Phe 380	Leu	Glu	Arg	Gly
Ser 385	Asn	Thr	Ile	Ala	Ser 390	Ala	Ala	Ala	Asp	Lys 395	Ile	Pro	Gly	Leu	Leu 400
Gly	Val	Phe	Gln	Lys 405	Leu	Ile	Ala	Ser	Lys 410	Ala	Asn	Asp	His	Gln 415	Gly
Phe	Tyr	Leu	Leu 420	Asn	Ser	Ile	Ile	Glu 425	His	Met	Pro	Pro	Glu 430	Ser	Val
Asp	Gln	Tyr 435	Arg	Lys	Gln	Ile	Phe 440	Ile	Leu	Leu	Phe	Gln 445	Arg	Leu	Gln
Asn	Ser 450	Lys	Thr	Thr	Lys	Phe 455	Ile	Lys	Ser	Phe	Leu 460	Val	Phe	Ile	Asn
Leu 465	Tyr	Суз	Ile	Lys	Tyr 470	Gly	Ala	Leu	Ala	Leu 475	Gln	Glu	Ile	Phe	Asp 480
Gly	Ile	Gln	Pro	Lys 485	Met	Phe	Gly	Met	Val 490	Leu	Glu	Lys	Ile	Ile 495	Ile
Pro	Glu	Ile	Gln 500	Lys	Val	Ser	Gly	Asn 505	Val	Glu	Lys	Lys	Ile 510	Cys	Ala

Val Gly Ile Thr Lys Leu Leu Thr Glu Cys Pro Pro Met Met Asp Thr 520 Glu Tyr Thr Lys Leu Trp Thr Pro Leu Leu Gln Ser Leu Ile Gly Leu 535 Phe Glu Leu Pro Glu Asp Asp Thr Ile Pro Asp Glu Glu His Phe Ile 555 550 Asp Ile Glu Asp Thr Pro Gly Tyr Gln Thr Ala Phe Ser Gln Leu Ala 570 Phe Ala Gly Lys Lys Glu His Asp Pro Val Gly Gln Met Val Asn Asn Pro Lys Ile His Leu Ala Gln Ser Leu His Lys Leu Ser Thr Ala Cys Pro Gly Arg Val Pro Ser Met Val Ser Thr Ser Leu Asn Ala Glu Ala 610 615 Leu Gln Tyr Leu Gln Gly Tyr Leu Gln Ala Ala Ser Val Thr Leu Leu 630 635

<210> 446

<211> 157

<212> PRT

<213> Homo sapiens

<400> 446

Leu Glu Val Ala Ile Cys Cys Gln Gly Cys Gly Val Ala Pro Asp Phe
1 5 10 15

Thr Ala Val Pro Gly Thr Trp Thr Pro Arg Leu Gly Val Gly Val Cys
20 25 30

Phe Leu Leu Ala Phe Thr Glu Ala Thr Gly Val Gly Gly Gly 35 40 45

Trp Glu Ser Leu Lys Arg Asp Cys His Gly Ser Phe Pro Thr Arg Ala
50 55 60

Thr Ser Ser His Leu Thr Asp Ala Arg Pro Lys Gly Leu Gln Pro Val 65 70 75 80 Ala Ile Pro Cys Phe Pro Arg Gln Pro Ala Pro Ala Ala Ile Pro Arg 85 90 95

Glu Val Ala Gln Glu Gly Ala Trp Pro Arg Ile Arg Asn Trp His Thr 100 105 110

Ala Lys Ser Pro Ala Leu Pro Leu Val Asp Ser Ile Val Leu Glu Trp 115 120 125

Ser Tyr Gly His Leu Gly Arg Thr Trp Asn Leu Ala Ser 145 150 155

<210> 447

<211> 81

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (38)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 447

Ala Glu Phe Cys Leu Trp Ala Ser Pro Phe Pro Ala Asn Ser Thr Asp 1 5 10 15

Pro Val Lys Ala Ala Gln Phe Glu Pro Pro Gly Arg Gln Met Ile Ala 20 25 30

Ile Arg Lys Arg Gln Xaa Glu Glu Thr Asn Asn Asp Tyr Glu Thr Ala 35 40 45

Asp Gly Gly Tyr Met Thr Leu Asn Pro Arg Ala Pro Thr Asp Asp Asp 50 60

Lys Asn Ile Tyr Leu Thr Leu Pro Pro Asn Asp His Val Asn Ser Asn 65 70 75 80

Asn

<210> 448

<211> 340

<212> PRT

<213> Homo sapiens

<400> 448

Cys Val Trp Val Leu Val Cys Arg Pro Ser Gly Pro Gly His Asp Ser

Ile Met Tyr His Asn Ser Ser Gln Lys Arg His Trp Thr Phe Ser Ser 20 25 30

Glu Glu Gln Leu Ala Arg Leu Arg Ala Asp Ala Asn Arg Lys Phe Arg 35 40 45

Cys Lys Ala Val Ala Asn Gly Lys Val Leu Pro Asn Asp Pro Val Phe 50 55 60

Leu Glu Pro His Glu Glu Met Thr Leu Cys Lys Tyr Tyr Glu Lys Arg
65 70 75 80

Leu Leu Glu Phe Cys Ser Val Phe Lys Pro Ala Met Pro Arg Ser Val 85 90 95

Val Gly Thr Ala Cys Met Tyr Phe Lys Arg Phe Tyr Leu Asn Asn Ser 100 105 110

Val Met Glu Tyr His Pro Arg Ile Ile Met Leu Thr Cys Ala Phe Leu 115 120 125

Ala Cys Lys Val Asp Glu Phe Asn Val Ser Ser Pro Gln Phe Val Gly
130 135 . 140

Leu Glu Tyr Glu Leu Leu Leu Ile Gln Gln Leu Asn Phe His Leu Ile 165 170 175

Val His Asn Pro Tyr Arg Pro Phe Glu Gly Phe Leu Ile Asp Leu Lys 180 185 190

Thr Arg Tyr Pro Ile Leu Glu Asn Pro Glu Ile Leu Arg Lys Thr Ala 195 200 205

Asp Asp Phe Leu Asn Arg Ile Ala Leu Thr Asp Ala Tyr Leu Leu Tyr 210 215 220

Thr Pro Ser Gln Ile Ala Leu Thr Ala Ile Leu Ser Ser Ala Ser Arg 225 230 235 240

Ala Gly Ile Thr Met Glu Ser Tyr Leu Ser Glu Ser Leu Met Leu Lys
245 250 255

Glu Asn Arg Thr Cys Leu Ser Gln Leu Leu Asp Ile Met Lys Ser Met Arg Asn Leu Val Lys Lys Tyr Glu Pro Pro Arg Ser Glu Glu Val Ala 280 Val Leu Lys Gln Lys Leu Glu Arg Cys His Ser Ala Glu Leu Ala Leu 295 Asn Val Ile Thr Lys Lys Arg Lys Gly Tyr Glu Asp Asp Asp Tyr Val 310 315 Ser Lys Lys Ser Lys His Glu Glu Glu Glu Trp Thr Asp Asp Asp Leu 330 325 Val Glu Ser Leu 340 <210> 449 <211> 625 <212> PRT <213> Homo sapiens <400> 449 Ala Leu Gly Cys Arg Ser Leu Cys Cys Val Ile Pro Gln Ser His Ala Arg Asp Ser Gly Tyr Leu Phe Val Gly Leu Ser Gly Phe Arg Leu Pro 25 Asp Gln Ala Pro Ala Pro Ala Leu Gln Arg Arg Leu Tyr Ser Pro Asp 35 Ala Asp Arg Asp Cys Cys Ser His Gly Pro Val Ser Gly Gln Ser Ala Gln Leu Val Leu Asp Thr Lys Asp Leu Thr Ile Glu Lys Val Val Ile Asn Gly Gln Glu Val Lys Tyr Ala Leu Gly Glu Arg Gln Ser Tyr 85 Lys Gly Ser Pro Met Glu Ile Ser Leu Pro Ile Ala Leu Ser Lys Asn 100 105 Gln Glu Ile Val Ile Glu Ile Ser Phe Glu Thr Ser Pro Lys Ser Ser

120

Ala Leu Gln Trp Leu Thr Pro Glu Gln Thr Ser Gly Lys Glu His Pro

	130	٠				135					140				
Tyr 145	Leu	Phe	Ser	Gln	Cys 150	Gln	Ala	Ile	His	Cys 155	Arg	Ala	Ile	Leu	Pro 160
Cys	Gln	Asp	Thr	Pro 165	Ser	Val	Lys	Leu	Thr 170	Tyr	Thr	Ala	Glu	Val 175	Ser
Val	Pro	Lys	Glu 180	Leu	Val	Ala	Leu	Met 185	Ser	Ala	Ile	Arg	Asp 190	Gly	Glu
Thr	Pro	Asp 195	Pro	Glu	Asp	Pro	Ser 200	Arg	Lys	Ile	Tyr	Lys 205	Phe	Ile	Gln
Lys	Val 210	Pro	Ile	Pro	Cys	Tyr 215	Leu	Ile	Ala	Leu	Val 220	Val	Gly	Ala	Leu
Glu 225	Ser	Arg	Gln	Ile	Gly 230	Pro	Arg	Thr	Leu	Val 235	Trp	Ser	Glu	Lys	Glu 240
Gln	Val	Glu	Lys	Ser 245	Ala	Tyr	Glu	Phe	Ser 250	Glu	Thr	Glu	Ser	Met 255	Leu
Lys	Ile	Ala	Glu 260	Asp	Leu	Gly	Gly	Pro 265	Tyr	Val	Trp	Gly	Gln 270	Tyr	Asp
Leu	Leu	Val 275	Leu	Pro	Pro	Ser	Phe 280	Pro	Tyr	Gly	Gly	Met 285	Glu	Asn	Pro
Cys	Leu 290	Thr	Phe	Val	Thr	Pro 295	Thr	Leu	Leu	Ala	Gly 300	Asp	Lys	Ser	Leu
Ser 305	Asn	Val	Ile	Ala	His 310	Glu	Ile	Ser	His	Ser 315	Trp	Thr	Gly	Asn	Leu 320
Val	Thr	Asn	Lys	Thr 325	Trp	Asp	His	Phe	Trp 330	Leu	Asn	Glu	Gly	His 335	Thr
Val	Tyr	Leu	Glu 340	Arg	His	Ile	Cys	Gly 345	Arg	Leu	Phe	Gly	Glu 350	Lys	Phe
Arg	His	Phe 355	Asn	Ala	Leu	Gly	Gly 360	Trp	Gly	Glu	Leu	Gln 365	Asn	Ser	Val
Lys	Thr 370	Phe	Gly	Glu	Thr	His 375	Pro	Phe	Thr	Lys	Leu 380	Val	Val	Asp	Leu
Thr 385	Asp	Ile	Asp	Pro	Asp 390	Val	Ala	Tyr	Ser	Ser 395	Val	Pro	Tyr	Glu	Lys 400
Gly	Phe	Ala	Leu	Leu	Phe	Tyr	Leu	Glu	Gln	Leu	Leu	Gly	Gly	Pro	Glu

410 405 Ile Phe Leu Gly Phe Leu Lys Ala Tyr Val Glu Lys Phe Ser Tyr Lys 425 Ser Ile Thr Thr Asp Asp Trp Lys Asp Phe Leu Tyr Ser Tyr Phe Lys 440 Asp Lys Val Asp Val Leu Asn Gln Val Asp Trp Asn Ala Trp Leu Tyr 455 Ser Pro Gly Leu Pro Pro Ile Lys Pro Asn Tyr Asp Met Thr Leu Thr 470 475 Asn Ala Cys Ile Ala Leu Ser Gln Arg Trp Ile Thr Ala Lys Glu Asp 485 490 Asp Leu Asn Ser Phe Asn Ala Thr Asp Leu Lys Asp Leu Ser Ser His 500 505 Gln Leu Asn Glu Phe Leu Ala Gln Thr Leu Gln Arg Ala Pro Leu Pro 520 Leu Gly His Ile Lys Arg Met Gln Glu Val Tyr Asn Phe Asn Ala Ile 530 535 Asn Asn Ser Glu Ile Arg Phe Arg Trp Leu Arg Leu Cys Ile Gln Ser 550 Lys Trp Glu Asp Ala Ile Pro Leu Ala Leu Lys Met Ala Thr Glu Gln 570 Gly Arg Met Lys Phe Thr Arg Pro Leu Phe Lys Asp Leu Ala Ala Phe 580 Asp Lys Ser His Asp Gln Ala Val Arg Thr Tyr Gln Glu His Lys Ala Ser Met His Pro Val Thr Ala Met Leu Val Gly Lys Asp Leu Lys Val 620 615 qzA

<210> 450

<211> 95

625

<212> PRT

<213> Homo sapiens

<400> 450 Asp Gly Ala Leu Leu Ile Pro His Leu Val Gln Phe Leu His Leu Gln Met Ala Ala Val Arg Ser Trp Gly Arg Arg Thr Leu Gln Ser His Thr 25 Lys Cys Leu Pro Pro Gly Pro Leu Ser Ser Leu Ser Ala Thr Gln Cys 40 His Gln Asp Glu Gln Ser Trp Pro Ser Ile Met Thr Glu Arg Gly Arg 55 Leu Arg Gly Ser Pro Asp Cys Ala Glu Leu Arg Thr Gln Trp Arg Phe 75 70 Ser Gly Thr Leu Arg Ser Leu Trp Gln Ala Trp Ser Gly Ser Pro 90 <210> 451 <211> 147 <212> PRT <213> Homo sapiens <400> 451 Ser Ser Pro Val Asn Ala Thr Ala Phe Ala Ser Cys Leu Cys Ala Val Cys Asp Val Thr Gly Leu Phe Cys Lys His Gln His Val Gly Lys Leu 25 20 Gly Ser Asn Leu Cys Ala Phe Val Phe Pro Met Gly Arg Asp Ser Gly 40 Ser Arg Val Pro Leu Cys Ile Cys Phe Phe Val Leu Ala Glu Ile Leu 55 Leu Glu Val Gly Arg Phe Ser Gln Gly Phe Ile Arg Leu Met Ser Ile 65 70 Ser Val Leu Pro Ser Ser Lys Pro His Leu Leu Asn Gly Lys Gly Arg 90

Trp Met Ala Pro Ala Gln Leu Asp Leu Arg Leu Trp Ser Gln Arg Arg 100 105 110

Cys Gly Ala Glu Ala Tyr Pro Ala Asp Thr Leu Asp Ile Leu Leu Pro

125

120

115

Pro Gly Cys Arg Gly Gln Arg Pro Pro Ala Gln Gly Ser Cys Thr Tyr 130 135 140

Leu Leu Ile 145

<210> 452

<211> 487

<212> PRT

<213> Homo sapiens

<400> 452

Asp Leu Glu Arg Ser Tyr Leu Leu Lys Ile Asn Gly Lys Val Ala Glu
1 5 10 15

Arg Pro Gln His Met Leu Met Arg Val Ser Val Gly Ile His Lys Glu
20 25 30

Asp Ile Asp Ala Ala Ile Glu Thr Tyr Asn Leu Leu Ser Glu Arg Trp 35 40 45

Phe Thr His Ala Ser Pro Thr Leu Phe Asn Ala Gly Thr Asn Arg Pro 50 55 60

Gln Leu Ser Ser Cys Phe Leu Leu Ser Met Lys Asp Asp Ser Ile Glu
65 70 75 80

Gly Ile Tyr Asp Thr Leu Lys Gln Cys Ala Leu Ile Ser Lys Ser Ala \$85\$ 90 95

Gly Gly Ile Gly Val Ala Val Ser Cys Ile Arg Ala Thr Gly Ser Tyr
100 105 110

Ile Ala Gly Thr Asn Gly Asn Ser Asn Gly Leu Val Pro Met Leu Arg 115 120 125

Val Tyr Asn Asn Thr Ala Arg Tyr Val Asp Gln Gly Gly Asn Lys Arg 130 135 140

Pro Gly Ala Phe Ala Ile Tyr Leu Glu Pro Trp His Leu Asp Ile Phe 145 150 155 160

Glu Phe Leu Asp Leu Lys Lys Asn Thr Gly Lys Glu Glu Gln Arg Ala 165 170 175

Arg Asp Leu Phe Phe Ala Leu Trp Ile Pro Asp Leu Phe Met Lys Arg 180 185 190

Val Glu Thr Asn Gln Asp Trp Ser Leu Met Cys Pro Asn Glu Cys Pro

195		200		205	
Gly Leu Asp 210	Glu Val Tr	p Gly Glu 215	Glu Phe Glu	Lys Leu Tyr 220	Ala Ser
Tyr Glu Lys 225	Gln Gly Ai		Lys Val Val 235	Lys Ala Gln	Gln Leu 240
Trp Tyr Ala	Ile Ile Gl 245	u Ser Gln	Thr Glu Thr 250	Gly Thr Pro	Tyr Met 255
Leu Tyr Lys	Asp Ser Cy 260	s Asn Arg	Lys Ser Asn 265	Gln Gln Asn 270	Leu Gly
Thr Ile Lys	_	n Leu Cys 280	Thr Glu Ile	Val Glu Tyr 285	Thr Ser
Lys Asp Glu 290	Val Ala Va	al Cys Asn 295	Leu Ala Ser	Leu Ala Leu 300	Asn Met
Tyr Val Thr 305	Ser Glu Hi	_	Asp Phe Lys	Lys Leu Ala	Glu Val 320
Thr Lys Val	. Val Val Ai 325	g Asn Lev	Asn Lys Ile 330	Ile Asp Ile	Asn Tyr 335
Tyr Pro Val	Pro Glu Al	a Cys Ley	Ser Asn Lys 345	Arg His Arg 350	Pro Ile
Gly Ile Gly 355		y Leu Ala 360	Asp Ala Phe	Ile Leu Met 365	Arg Tyr
Pro Phe Glu 370	Ser Ala Gl	u Ala Glr 375	Leu Leu Asn	Lys Gln Ile 380	Phe Glu
Thr Ile Tyr 385	Tyr Gly Al		Ala Ser Cys 395	Asp Leu Ala	Lys Glu 400
Gln Gly Pro	Tyr Glu Th	r Tyr Glu	Gly Ser Pro 410	Val Ser Lys	Gly Ile 415
Leu Gln Tyr	Asp Met Tr 420	p Asn Val	Thr Pro Thr 425	Asp Leu Trp 430	Asp Trp
Lys Val Leu 435	-	s Ile Ala 440	Lys Tyr Gly	Ile Arg Asn 445	Ser Leu
Leu Ile Ala 450	Pro Met Pr	o Thr Ala	Ser Thr Ala	Gln Ile Leu 460	Gly Asn
Asn Glu Ser	Ile Glu Pr	o Tyr Thr	Ser Asn Ile	Tyr Thr Arg	Arg Ser

480 465 470 475 Cys Gln Glu Asn Phe Arg Leu 485 <210> 453 <211> 330 <212> PRT <213> Homo sapiens <220> <221> SITE <222> (213) <223> Xaa equals any of the naturally occurring L-amino acids <400> 453 Glu Glu Val Pro Leu Ala Gln Pro Glu Ser Lys Arg Asp Ile Leu Phe 10 Leu Phe Asp Gly Ser Ala Asn Leu Val Gly Gln Phe Pro Val Val Arg 20 Asp Phe Leu Tyr Lys Ile Ile Asp Glu Leu Asn Val Lys Pro Glu Gly Thr Arg Ile Ala Val Ala Gln Tyr Ser Asp Asp Val Lys Val Glu Ser 55 Arg Phe Asp Glu His Gln Ser Lys Pro Glu Ile Leu Asn Leu Val Lys 75 65 70 Arg Met Lys Ile Lys Thr Gly Lys Ala Leu Asn Leu Gly Tyr Ala Leu Asp Tyr Ala Gln Arg Tyr Ile Phe Val Lys Ser Ala Gly Ser Arg Ile 105 Glu Asp Gly Val Leu Gln Phe Leu Val Leu Leu Val Ala Gly Arg Ser 115 Ser Asp Arg Val Asp Gly Pro Ala Ser Asn Leu Lys Gln Ser Gly Val 135 Val Pro Phe Ile Phe Gln Ala Lys Asn Ala Asp Pro Ala Glu Leu Glu 150 155 Gln Ile Val Leu Ser Pro Ala Phe Ile Leu Ala Ala Glu Ser Leu Pro

170

165

Lys Ile Gly Asp Leu His Pro Gln Ile Val Asn Leu Leu Lys Ser Val 185 180 His Asn Gly Ala Pro Ala Pro Val Ser Gly Glu Lys Asp Val Val Phe 195 Leu Leu Asp Gly Xaa Glu Gly Val Arg Ser Gly Phe Pro Leu Leu Lys 215 Glu Phe Val Gln Arg Val Val Glu Ser Leu Asp Val Gly Gln Asp Arg 230 235 Val Arg Val Ala Val Gln Tyr Ser Asp Arg Thr Arg Pro Glu Phe Tyr Leu Asn Ser Tyr Met Asn Lys Gln Asp Val Val Asn Ala Val Arg 265 Gln Leu Thr Leu Leu Gly Gly Pro Thr Pro Asn Thr Gly Ala Ala Leu 280 Glu Phe Val Leu Arg Asn Ile Leu Val Ser Ser Ala Gly Ser Arg Ile 290. 295 300 Thr Glu Gly Val Pro Gln Leu Leu Ile Val Leu Thr Ala Asp Ser Leu 305 310 315 Gly Met Met Cys Gly Thr Pro Pro Trp Ser 325 <210> 454 <211> 280 <212> PRT <213> Homo sapiens

<400> 454

Leu Glu Phe Arg Ser Gly Lys Val Ala Phe Arg Asp Cys Glu Gly Arg
1 5 10 15

Tyr Leu Ala Pro Ser Gly Pro Ser Gly Thr Leu Lys Ala Gly Lys Ala
20 25 30

Thr Lys Val Gly Lys Asp Glu Leu Phe Ala Leu Glu Gln Ser Cys Ala
35 40 45

Gln Val Val Leu Gln Ala Ala Asn Glu Arg Asn Val Ser Thr Arg Gln 50 55 60

Gly Met Asp Leu Ser Ala Asn Gln Asp Glu Glu Thr Asp Gln Glu Thr

65 70 75 Phe Gln Leu Glu Ile Asp Arg Asp Thr Lys Lys Cys Ala Phe Arg Thr 90 His Thr Gly Lys Tyr Trp Thr Leu Thr Ala Thr Gly Gly Val Gln Ser Thr Ala Ser Ser Lys Asn Ala Ser Cys Tyr Phe Asp Ile Glu Trp Arg 115 120 Asp Arg Arg Ile Thr Leu Arg Ala Ser Asn Gly Lys Phe Val Thr Ser 135 Lys Lys Asn Gly Gln Leu Ala Ala Ser Val Glu Thr Ala Gly Asp Ser 145 150 155 Glu Leu Phe Leu Met Lys Leu Ile Asn Arg Pro Ile Ile Val Phe Arg Gly Glu His Gly Phe Ile Gly Cys Arg Lys Val Thr Gly Thr Leu Asp 185 Ala Asn Arg Ser Ser Tyr Asp Val Phe Gln Leu Glu Phe Asn Asp Gly 195 200 205 Ala Tyr Asn Ile Lys Asp Ser Thr Gly Lys Tyr Trp Thr Val Gly Ser 215 Asp Ser Ala Val Thr Ser Ser Gly Asp Thr Pro Val Asp Phe Phe 230 235 Glu Phe Cys Asp Tyr Asn Lys Val Ala Ile Lys Val Gly Gly Arg Tyr 245 . 250 Leu Lys Gly Asp His Ala Gly Val Leu Lys Ala Ser Ala Glu Thr Val 265 Asp Pro Ala Ser Leu Trp Glu Tyr 275

<210> 455

<211> 255

<212> PRT

<213> Homo sapiens

<400> 455

Asn Ser Arg Val Asp Pro Arg Val Arg Thr Ala Leu Gln Ile Phe Gln
1 5 10 15

Leu Val Ser Ala His Arg Met Lys Arg Pro Trp Gln Gly Gln Val Glu 65 70 75 80

Pro Gln Leu Leu Lys Thr Val Pro Arg His Asp Pro Leu Asn Pro Leu 85 90 95

Cys Pro Gly Ala Ile Arg Ala Asn Gly Glu Val Asn Pro Gln Tyr Asp 100 105 110

Ser Thr Phe Leu Phe Asp Asn Asp Phe Pro Ala Leu Gln Pro Asp Ala 115 120 125

Pro Ser Pro Gly Pro Ser Asp His Pro Leu Phe Gln Ala Lys Ser Ala 130 135 140

Arg Gly Val Cys Lys Val Met Cys Phe His Pro Trp Ser Asp Val Thr 145 150 155 160

Leu Pro Leu Met Ser Val Pro Glu Ile Arg Ala Val Val Asp Ala Trp 165 170 175

Ala Ser Val Thr Glu Glu Leu Gly Ala Gln Tyr Pro Trp Val Gln Ile 180 185 190

Phe Glu Asn Lys Gly Ala Met Met Gly Cys Ser Asn Pro His Pro His 195 200 205

Cys Gln Val Trp Ala Ser Ser Phe Leu Pro Asp Ile Ala Gln Arg Glu 210 215 220

Glu Arg Ser Gln Gln Ala Tyr Lys Ser Gln His Gly Glu Pro Leu Leu 225 230 235 240

Met Glu Tyr Ser Arg Gln Ser Tyr Ser Gly Arg Asn Val Trp Ser 245 250 255

<210> 456

<211> 278

<212> PRT

<213> Homo sapiens <220> <221> SITE <222> (9) <223> Xaa equals any of the naturally occurring L-amino acids Ser Pro Gln Trp Pro Leu Cys Ala Xaa Lys Ser Val Arg Val Pro Asn Gly Gly Gly Gly Gly Gly Leu Pro Ile Ser Thr Val Arg Glu Val 25 Ala Leu Leu Arg Arg Leu Glu Ala Phe Glu His Pro Asn Val Val Arg 35 40 Leu Met Asp Val Cys Ala Thr Ser Arg Thr Asp Arg Glu Ile Lys Val Thr Leu Val Phe Glu His Val Asp Gln Asp Leu Arg Thr Tyr Leu Asp Lys Ala Pro Pro Pro Gly Leu Pro Ala Glu Thr Ile Lys Asp Leu Met 85 Arg Gln Phe Leu Arg Gly Leu Asp Phe Leu His Ala Asn Cys Ile Val 100 105 His Arg Asp Leu Lys Pro Glu Asn Ile Leu Val Thr Ser Gly Gly Thr 120 Val Lys Leu Ala Asp Phe Gly Leu Ala Arg Ile Tyr Ser Tyr Gln Met 130 Ala Leu Thr Pro Val Val Val Thr Leu Trp Tyr Arg Ala Pro Glu Val 150 155 Leu Leu Gln Ser Thr Tyr Ala Thr Pro Val Asp Met Trp Ser Val Gly 170 165

Pro Glu Asp Asp Trp Pro Arg Asp Val Ser Leu Pro Arg Gly Ala Phe 210 215 220

Cys Ile Phe Ala Glu Met Phe Arg Arg Lys Pro Leu Phe Cys Gly Asn

Ser Glu Ala Asp Gln Leu Gly Lys Ile Phe Asp Leu Ile Gly Leu Pro 195 200 205

180

Pro Pro Arg Gly Pro Arg Pro Val Gln Ser Val Val Pro Glu Met Glu

230 235 240 225 Glu Ser Gly Ala Gln Leu Leu Glu Met Leu Thr Phe Asn Pro His 245 250 Lys Arg Ile Ser Ala Phe Arg Ala Leu Gln His Ser Tyr Leu His Lys 265 Asp Glu Gly Asn Pro Glu 275 <210> 457 <211> 35 <212> PRT <213> Homo sapiens <400> 457 His Pro Gly Arg Glu Gln Gln Arg Ala Gly His Thr Thr Cys Gln Ala Leu Gly Val Cys Gly Thr Met Ser Ser Pro Leu Gln Cys Ile His Ser 25 Pro Asp Leu 35 <210> 458 <211> 154 <212> PRT <213> Homo sapiens <220> <221> SITE <222> (111) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (122) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (131) <223> Xaa equals any of the naturally occurring L-amino acids <220>

<221> SITE <222> (132) <223> Xaa equals any of the naturally occurring L-amino acids Arg Tyr Ser Val Ile Leu Leu Asp Thr Leu Leu Gly Arg Met Leu Pro 5 Gln Leu Val Cys Arg Leu Val Leu Arg Cys Ser Met Asp Asp Ser Ala 25 Gly Pro Arg Glu Trp Leu Pro Arg Asp Ser Glu Cys His Leu Cys Met 40 Ser Val Thr Thr Gln Ala Gly Asn Ser Ser Glu Gln Ala Ile Pro Gln 50 55 Ala Met Leu Gln Ala Cys Val Gly Ser Trp Leu Asp Arg Glu Lys Cys 70 . Lys Gln Phe Val Glu Gln His Thr Pro Gln Leu Leu Thr Leu Val Pro Arg Gly Trp Asp Ala His Thr Thr Cys Gln Ala Ser Gly Cys Xaa Gly 100 105 110 Pro Cys Pro Ala Leu Ser Ser Val Ser Xaa Ala Pro Thr Phe Asp Glu 120 Asn Ser Xaa Xaa Gln Ala Gly His Thr His Ser Pro Ser Leu Ala Leu 135 140

Ile Leu Leu Ser Cys Lys Gly Lys Ala Lys

150

145

<210> 459
<211> 396
<212> PRT
<213> Homo sapiens

<220>
<221> SITE
<222> (8)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221- SITE
<222> (370)

<223> Xaa equals any of the naturally occurring L-amino acids

<220> <221> SITE

<222> (395) <223> Xaa equals any of the naturally occurring L-amino acids <400> 459 Arg Val Ile Gly Ser Thr Val Xaa Arg Gly Leu Arg Pro Ser Cys Pro Asn Ser Gln Ser Pro Val Lys Val Glu Glu Thr Cys Gly Cys Arg Trp Thr Cys Pro Cys Val Cys Thr Gly Ser Ser Thr Arg His Ile Val Thr 40 Phe Asp Gly Gln Asn Phe Lys Leu Thr Gly Ser Cys Ser Tyr Val Leu 55 Phe Gln Asn Lys Glu Gln Asp Leu Glu Val Ile Leu His Asn Gly Ala 70 Cys Ser Pro Gly Ala Arg Gln Gly Cys Met Lys Ser Ile Glu Val Lys His Ser Ala Leu Ser Val Glu Leu His Ser Asp Met Glu Val Thr Val 100 105 Asn Gly Arg Leu Val Ser Val Pro Tyr Val Gly Gly Asn Met Glu Val 115 120 Asn Val Tyr Gly Ala Ile Met His Glu Val Arg Phe Asn His Leu Gly 135 His Ile Phe Thr Phe Thr Pro Gln Asn Asn Glu Phe Gln Leu Gln Leu 145 150 Ser Pro Lys Thr Phe Ala Ser Lys Thr Tyr Gly Leu Cys Gly Ile Cys 165 Asp Glu Asn Gly Ala Asn Asp Phe Met Leu Arg Asp Gly Thr Val Thr 185 Thr Asp Trp Lys Thr Leu Val Gln Glu Trp Thr Val Gln Arg Pro Gly 195 200 205 Gln Thr Cys Gln Pro Ile Leu Glu Glu Gln Cys Leu Val Pro Asp Ser 210 215 Ser His Cys Gln Val Leu Leu Leu Pro Leu Phe Ala Glu Cys His Lys 230 235

Val Leu Ala Pro Ala Thr Phe Tyr Ala Ile Cys Gln Gln Asp Ser Cys 250 245 His Gln Glu Gln Val Cys Glu Val Ile Ala Ser Tyr Ala His Leu Cys 265 Arg Thr Asn Gly Val Cys Val Asp Trp Arg Thr Pro Asp Phe Cys Ala 280 Met Ser Cys Pro Pro Ser Leu Val Tyr Asn His Cys Glu His Gly Cys 295 Pro Arg His Cys Asp Gly Asn Val Ser Ser Cys Gly Asp His Pro Ser 310 Glu Ala Val Ser Ala Leu Gln Ile Lys Ser Cys Trp Lys Ala Ala Val 330 Ser Leu Lys Arg Pro Ala Leu Ser Ala Leu Val Arg Met Glu Ser Ser 340 345 Thr Ser Ser Trp Lys Pro Gly Ser Arg Thr Thr Ser Pro Val Arg Ser 360 Ala Xaa Ala Ser Ala Gly Gly Arg Ser Thr Ala Gln Arg Ser Pro Ala 370 375 Pro Arg Pro Lys Leu Pro Arg Val Ala Cys Xaa Lys 390 <210> 460 <211> 124 <212> PRT <213> Homo sapiens <220> <221> SITE <222> (112) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (113) <223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (119)

<223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (123) <223> Xaa equals any of the naturally occurring L-amino acids Glu Gln Leu Thr Gly Ser Arg Ala Lys Ser Val Gly Ser Trp Arg Arg Ser Ser Gln Ser Val Lys Lys Pro Thr Glu Gly Lys Ser Arg Glu Glu 25 Glu Lys Lys Gln Lys Phe Trp His Leu Phe Pro Gly Cys Ala Lys Met 40 Gly Asp Trp Ser Phe Leu Gly Asn Phe Leu Glu Glu Val His Lys His Ser Thr Val Val Gly Lys Val Trp Leu Thr Val Leu Phe Ile Phe Arg 75 Met Leu Val Leu Gly Thr Ala Ala Glu Ser Ser Trp Gly Asp Glu Gln 85 90 Ala Asp Phe Arg Cys Asp Thr Ile Gln Pro Gly Cys Gln Asn Val Xaa 105 Xaa Asp Gln Ala Phe Pro Xaa Phe Pro His Xaa Leu <210> 461 <211> 76 <212> PRT <213> Homo sapiens <220> <221> SITE <222> (75) <223> Xaa equals any of the naturally occurring L-amino acids <400> 461 Pro Ala Arg Trp Leu Leu Ser Thr Thr Met Ala Ser Thr Glu Gly Thr 10

Cys Cys Pro Val Asn Trp Val Glu His Gln Asp Ser Cys Tyr Trp Phe

25

20

Ser His Ser Gly Met Ser Trp Ala Glu Ala Glu Lys Tyr Cys Gln Leu 35 40 45

Lys Asn Ala His Leu Val Val Ile Lys Ser Arg Glu Glu Gln Val Arg
50 55 60

Ala Ser Trp Tyr Ser Val Pro Lys Thr Cys Xaa Ile 65 70 75

<210> 462

<211> 138

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (66)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (123)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (128)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 462

Leu Gly Pro Asn Lys Lys Lys Pro Ala Met Leu Leu Phe Leu Leu Ser

1 5 . 10 15

Ala Leu Val Leu Leu Thr Gln Pro Leu Gly Tyr Leu Glu Ala Glu Met 20 25 30

Lys Thr Tyr Ser His Arg Thr Met Pro Ser Ala Cys Thr Leu Val Met $35 \hspace{1.5cm} 40 \hspace{1.5cm} 45$

Cys Ser Ser Val Glu Ser Gly Leu Pro Gly Arg Asp Gly Arg Asp Gly 50 $$ 55 $$ 60

Arg Xaa Gly Pro Arg Gly Glu Lys Gly Asp Pro Gly Leu Pro Gly Ala
65 70 75 80

Ala Gly Gln Ala Gly Met Pro Gly Gln Ala Gly Pro Val Gly Pro Lys
85 90 95

Gly Asp Asn Gly Ser Val Gly Glu Pro Gly Pro Lys Gly Asp Thr Trp

100 105 110

Ala Lys Leu Asp Leu Gln Glu Leu Pro Val Xaa Leu Val Gln Leu Xaa 115 120 125

Glu Lys Val Pro Trp Gly Ser Lys Gly Thr 130 135

<210> 463

<211> 246

<212> PRT

<213> Homo sapiens

<400> 463

Gly Arg Gly Leu Arg Gly Pro Gly Asp Ser Arg Pro Arg His Leu Pro 1 5 10 15

Val Ala Cys His Leu Leu Arg Leu Arg Thr Pro His Leu Asp Arg Ala
20 25 30

Leu Pro Arg Arg Leu Pro Ser Gln Asp Tyr Thr Gly Gly Met Gly Ile 35 40 45

Val Asn Gly Ala Lys Trp Asn Pro Arg Thr Gly Thr Ile Asn Asp Phe 50 55 60

Ser Tyr Leu His Thr Asn Cys Leu Glu Leu Ser Phe Tyr Leu Gly Cys 65 70 75 80

Asp Lys Phe Pro His Glu Ser Glu Leu Pro Arg Glu Trp Glu Asn Asn 85 90 95

Lys Glu Ala Leu Leu Thr Phe Met Glu Gln Val His Arg Gly Ile Lys 100 105 110

Gly Val Val Thr Asp Glu Gln Gly Ile Pro Ile Ala Asn Ala Thr Ile 115 120 125

Ser Val Ser Gly Ile Asn His Gly Val Lys Thr Ala Ser Gly Gly Asp 130 135 · 140

Tyr Trp Arg Ile Leu Asn Pro Gly Glu Tyr Arg Val Thr Ala His Ala 145 150 155 160

Arg Gly Tyr Thr Pro Ser Ala Lys Thr Cys Asn Val Asp Tyr Asp Ile 165 170 175

Gly Ala Thr Gln Cys Asn Phe Ile Leu Ala Arg Ser Asn Trp Lys Arg 180 185 190

235

 Ile Arg Glu Ile Met Ala Met 195
 Asn Gly Asn Arg Pro Ile Pro His Ile 200

 Asp Pro Ser Arg Pro Met Thr 215
 Pro Gln Gln Arg Arg Leu Gln Gln Arg 220

Arg Leu Gln His Arg Leu Arg Phe Gly His Arg Cys Gly Cys Gly Ala

230

Ser Thr Pro Pro Pro Pro 245

<210> 464 <211> 232 <212> PRT <213> Homo sapiens

<220> <221> SITE <222> (223)

<223> Xaa equals any of the naturally occurring L-amino acids

<220> <221> SITE <222> (225)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 464

Arg Asp Arg Ser Cys Arg Gly Pro Gly Arg Arg Ser Pro Ile Pro Ser 1 5 10 15

Pro Gln Val Leu Gly Thr Thr Trp Val Pro Arg Ala Gly Glu Met Val 20 25 30

Cys Gly Gly Phe Ala Cys Ser Lys Asn Ala Leu Cys Ala Leu Asn Val 35 40 45

Val Tyr Met Leu Val Ser Leu Leu Leu Ile Gly Val Ala Ala Trp Gly 50 55 60

Lys Gly Leu Gly Leu Val Ser Ser Ile His Ile Ile Gly Gly Val Ile 65 70 75 80

Ala Val Gly Val Phe Leu Leu Leu Ile Ala Val Ala Gly Leu Val Gly 85 90 95

Ala Val Asn His His Gln Val Leu Leu Phe Phe Tyr Met Ile Ile Leu 100 105 110

Gly Leu Val Phe Ile Phe Gln Phe Val Ile Ser Cys Ser Cys Leu Ala 115 120 Ile Asn Arg Ser Lys Gln Thr Asp Val Ile Asn Ala Ser Trp Trp Val 135 Met Ser Asn Lys Thr Arg Asp Glu Leu Glu Arg Ser Phe Asp Cys Cys 150 Gly Leu Phe Asn Leu Thr Thr Leu Tyr Gln Gln Asp Tyr Asp Phe Cys 165 170 Thr Ala Ile Cys Lys Ser Gln Ser Pro Thr Cys Gln Met Cys Gly Glu 180 185 Lys Phe Leu Lys His Ser Asp Glu Ala Leu Lys Ile Leu Gly Gly Val 200 Gly Leu Phe Phe Ser Phe Thr Glu Ile Leu Gly Val Trp Leu Xaa Met 220 Xaa Phe Arg Asn Gln Lys Gly Ser 225 230 <210> 465 <211> 215 <212> PRT <213> Homo sapiens <400> 465 Gly Leu Ala Pro Pro Arg Ser Arg Thr Met Ala Val Lys Lys Ile Ala 10 Ile Phe Gly Ala Thr Gly Gln Thr Gly Leu Thr Thr Leu Ala Gln Ala 25 Val Gln Ala Gly Tyr Glu Val Thr Val Leu Val Arg Asp Ser Ser Arg 35 Leu Pro Ser Glu Gly Pro Arg Pro Ala His Val Val Val Gly Asp Val 55 Leu Gln Ala Ala Asp Val Asp Lys Thr Val Ala Gly Gln Asp Ala Val

70

85

Ile Val Leu Leu Gly Thr Arg Asn Asp Leu Ser Pro Thr Thr Val Met

75

90

Ser Glu Gly Ala Arg Asn Ile Val Ala Ala Met Lys Ala His Gly Val Asp Lys Val Val Ala Cys Thr Ser Ala Phe Leu Leu Trp Asp Pro Thr 125 120 115 Lys Val Pro Pro Arg Leu Gln Ala Val Thr Asp Asp His Ile Arg Met 135 His Lys Val Leu Arg Glu Ser Gly Leu Lys Tyr Val Ala Val Met Pro 150 Pro His Ile Gly Asp Gln Pro Leu Thr Gly Ala Tyr Thr Val Thr Leu 165 170 Asp Gly Arg Gly Pro Ser Arg Val Ile Ser Lys His Asp Leu Gly His 180 185 Phe Met Leu Arg Cys Leu Thr Thr Asp Glu Tyr Asp Gly His Ser Thr 200 205 Tyr Pro Ser His Gln Tyr Gln 210 <210> 466 <211> 131 <212> PRT <213> Homo sapiens <220> <221> SITE <222> (95) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (97) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (103) <223> Xaa equals any of the naturally occurring L-amino acids <400> 466 Arg Thr Thr Ala Val Glu Leu Phe Val Lys Ala Gly Ser Asp Gly Ala 10

Lys Ile Gly Asn Cys Pro Phe Ser Gln Arg Leu Phe Met Val Leu Trp

20 25 30

Leu Lys Gly Val Thr Phe Asn Val Thr Thr Val Asp Thr Lys Arg Arg 35 40 45

Thr Glu Thr Val Gln Lys Leu Cys Pro Gly Gly Gln Leu Pro Phe Leu 50 55 60

Leu Tyr Gly Thr Glu Val His Thr Asp Thr Asn Lys Ile Glu Glu Phe 65 70 75 80

Leu Glu Ala Val Leu Cys Pro Pro Arg Tyr Pro Lys Leu Ala Xaa Leu 85 90 95

Xaa Pro Glu Ser Asn Thr Xaa Gly Leu Asp Ile Phe Ala Lys Phe Ser 100 105 110

Ala Tyr Ile Lys Asn Ser Lys Pro Ser Thr Gln Leu Thr Ile Trp Arg 115 120 125

Arg Asp Ser 130

<210> 467

<211> 211

<212> PRT

<213> Homo sapiens

<400> 467

Gly Leu Trp Ile Ser Met Leu Cys Arg Trp Leu Met Trp Met Val Met

1 5 10 15

Asn Tyr Ser Trp Lys Lys Asn Arg Met Trp Arg Lys Asn Arg Ser Phe
20 25 30

Tyr Ala Asn Asn His Cys Ile Gly Thr Asp Leu Asn Arg Asn Phe Ala 35 40 45

Ser Lys His Trp Cys Glu Glu Gly Ala Ser Ser Ser Ser Cys Ser Glu 50 60

Thr Tyr Cys Gly Leu Tyr Pro Glu Ser Glu Pro Glu Val Lys Ala Val 65 70 75 80

Ala Ser Phe Leu Arg Arg Asn Ile Asn Gln Ile Lys Ala Tyr Ile Ser 85 90 95

Met His Ser Tyr Ser Gln His Ile Val Phe Pro Tyr Ser Tyr Thr Arg 100 105 110

Ser Lys Ser Lys Asp His Glu Glu Leu Ser Leu Val Ala Ser Glu Ala 115 120 125

Val Arg Ala Ile Glu Lys Thr Ser Lys Asn Thr Arg Tyr Thr His Gly
130 135 140

His Gly Ser Glu Thr Leu Tyr Leu Ala Pro Gly Gly Gly Asp Asp Trp 145 150 155 160

Ile Tyr Asp Leu Gly Ile Lys Tyr Ser Phe Thr Ile Glu Leu Arg Asp 165 170 175

Thr Gly Thr Tyr Gly Phe Leu Leu Pro Glu Arg Tyr Ile Lys Pro Thr 180 185 190

Cys Arg Glu Ala Phe Ala Ala Val Ser Lys Ile Ala Trp His Val Ile 195 200 205

Arg Asn Val 210

<210> 468

<211> 159

<212> PRT

<213> Homo sapiens

<400> 468

Leu Pro Ser Leu Lys Gly Thr Lys Ala Gly Ala Pro Pro Arg Cys Gly
1 5 10 15

Arg Ser Arg Thr Ser Gly Ser Pro Gly Leu Gln Glu Phe Gly Thr Ser 20 25 30

Phe Lys Val Thr Ser Arg Thr Gly Thr Leu Ala Ala Gln Ala Leu Arg 35 40 45

Ala Arg Gly Pro Ser Gly Ala Ala Met Arg Ser Met Ala Ser Gly 50 55 60

Gly Gly Val Pro Thr Asp Glu Glu Gln Ala Thr Gly Leu Glu Arg Glu 65 70 75 80

Ile Met Leu Ala Ala Lys Lys Gly Leu Asp Pro Tyr Asn Val Leu Ala 85 90 95

Pro Lys Gly Ala Ser Gly Thr Arg Glu Asp Pro Asn Leu Val Pro Ser 100 105 110 Ile Ser Asn Lys Arg Ile Val Gly Cys Ile Cys Glu Glu Asp Asn Thr 115 120

Ser Val Val Trp Phe Trp Leu His Lys Gly Glu Ala Gln Arg Cys Pro 135 130

Arg Cys Gly Ala His Tyr Lys Leu Val Pro Gln Gln Leu Ala His 150

<210> 469

<211> 58

<212> PRT

<213> Homo sapiens

<400> 469

Lys Phe Thr Lys Cys Leu Val Gln Leu Asn Ile Leu Leu Phe Lys Cys 5 10

Val Leu Leu Asn Phe Leu Leu Ser Leu Leu Asn Asn Leu Cys Gly Lys 25

Met Cys Val Ser Thr Phe Pro Ser Phe Phe Ile Ser Tyr Phe Gln Glu 40

Ser Asn Val Ala Ile Asn Cys Ile Leu Val 55

<210> 470

<211> 41

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (41)

<223> Kaa equals any of the naturally occurring L-amino acids

Cys Ser Gly Thr Trp Lys Lys His Asp Arg Lys Ile Ala Asp Gln Glu 10

Ile Trp Glu Arg Gly Met Ser Ile Asp Leu Ser Phe Phe Phe Phe

Phe Phe Phe Phe Phe Phe Xaa 35

```
<211> 60
<212> PRT
<213> Homo sapiens
<220>
<221> SITE
<222> (54)
<223> Xaa equals any of the naturally occurring L-amino acids
<400> 471
Gln Ala Gly Leu Ser Arg Tyr Gly Ser Pro Leu Gly Arg Arg Lys Lys
Gly Gly Ser Cys Leu Leu Pro Gly Glu Gly Leu Arg Gly Arg Gly Lys
             20
                                 25
Pro Arg Ala Pro Thr Lys Ala Asp Ile Asp Ser Gln Gly Leu Gly Leu
                             40
Lys Pro Gly Thr Val Xaa Leu Ser Gly Ser Tyr Trp
                         55
<210> 472
<211> 398
<212> PRT
<213> Homo sapiens
<220>
<221> SITE
<222> (391)
<223> Xaa equals any of the naturally occurring L-amino acids
<400> 472
Asn Gln Leu Ser Ser Ile Met Val Met Phe Lys Lys Ile Lys Ser Phe
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Glu Val Val Phe Asn Asp Pro Glu Lys Val Tyr Gly Ser Gly Glu Lys
             20
Val Ala Gly Arg Val Ile Val Glu Val Cys Glu Val Thr Arg Val Lys
Ala Val Arg Ile Leu Ala Cys Gly Val Ala Lys Val Leu Trp Met Gln
Gly Ser Gln Gln Cys Lys Gln Thr Ser Glu Tyr Leu Arg Tyr Glu Asp
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<210> 471

65					70					75					80
Thr	Leu	Leu	Leu	Glu 85	Asp	Gln	Pro	Thr	Gly 90	Glu	Asn	Glu	Met	Val 95	Ile
Met	Arg	Pro	Gly 100	Asn	Lys	туг	Glu	Tyr 105	Lys	Phe	Gly	Phe	Glu 110	Leu	Pro
Gln	Gly	Pro 115	Leu	Gly	Thr	Ser	Phe 120	Lys	Gly	Lys	Tyr	Gly 125	Cys	Val	Asp
Tyr	Trp 130	Val	Lys	Ala	Phe	Leu 135	Asp	Arg	Pro	Ser	Gln 140	Pro	Thr	Gln	Glu
Thr 145	Lys	Lys	Asn	Phe	Glu 150	Val	Val	Asp	Leu	Val 155	Asp	Val	Asn	Thr	Pro 160
Asp	Leu	Met	Ala	Pro 165	Val	Ser	Ala	Lys	Lys 170	Glu	Lys	Lys	Val	Ser 175	Cys
Met	Phe	Ile	Pro 180	Asp	Gly	Arg	Val	Ser 185	Val	Ser	Ala	Arg	Ile 190	Asp	Arg
Lys	Gly	Phe 195	Cys	Gl u	Gly	Asp	Glu 200	Ile	Ser	Ile	His	Ala 205	Asp	Phe	Glu
Asn	Thr 210	Cys	Ser	Arg	Ile	Val 215	Val	Pro	Lys	Ala	Ala 220	Ile	Val	Ala	Arg
His 225	Thr	Tyr	Leu	Ala	Asn 230	Gly	Gln	Thr	Lys	Val 235	Leu	Thr	Gln	Lys	Leu 240
Ser	Ser	Val	Arg	Gly 245	Asn	His	Ile	Ile	Ser 250	Gly	Thr	Cys	Ala	Ser 255	Trp
Arg	Gly	Lys	Ser 260	Leu	Arg	Val	Gln	Lys 265	Ile	Arg	Pro	Ser	11e 270	Leu	Gly
Cys	Asn	Ile 275	Leu	Arg	Val	Glu	Туг 280	Ser	Leu	Leu	Ile	Tyr 285	Val	Ser	Val
Pro	Gly 290	Ser	Lys	Lys	Val	Ile 295	Leu	Asp	Leu	Pro	Leu 300	Val	Ile	Gly	Ser
Arg 305	Ser	Gly	Leu	Ser	Ser 310	Arg	Thr	Ser	Ser	Met 315	Ala	Ser	Arg	Thr	Ser 320
Ser	Glu	Met	Ser	Trp 325	Val	Asp	Leu	Asn	Ile 330	Pro	Asp	Thr	Pro	Glu 335	Ala
Pro	Pro	Cys	Tyr	Met	Asp	Val	Ile	Pro	Glu	Asp	His	Arg	Leu	Glu	Ser

340 345 350 Pro Thr Thr Pro Leu Leu Asp Asp Met Asp Gly Ser Gln Asp Ser Pro 360 Ile Phe Met Tyr Ala Pro Glu Phe Lys Phe Met Pro Pro Thr Tyr 375 Thr Glu Val Gly Ser Leu Xaa Ser Leu Leu Leu Asn Leu Ser 385 390 395 <210> 473 <211> 259 <212> PRT <213> Homo sapiens <220> <221> SITE <222> (20) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (61) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (234) <223> Xaa equals any of the naturally occurring L-amino acids <400> 473 Lys Glu Ala Gly Ala Ala Thr Gly Pro Arg Ala Met Trp Leu Cys Pro Leu Ala Leu Xaa Leu Ile Leu Met Ala Ala Ser Gly Ala Ala Cys Glu 20 25 Val Lys Asp Val Cys Val Gly Ser Pro Gly Ile Pro Gly Thr Pro Gly Ser His Gly Leu Pro Gly Arg Asp Gly Arg Asp Gly Xaa Lys Gly Asp Pro Gly Pro Pro Gly Pro Met Gly Pro Pro Gly Glu Thr Pro Cys Pro

65

70

85

Pro Gly Asn Asn Gly Leu Pro Gly Ala Pro Gly Val Pro Gly Glu Arg

90

Gly Glu Lys Gly Glu Ala Gly Glu Arg Gly Pro Pro Gly Leu Pro Ala 100 105 His Leu Asp Glu Glu Leu Gln Ala Thr Leu His Asp Phe Arg His Gln 120 Ile Leu Gln Thr Arg Gly Ala Leu Ser Leu Gln Gly Ser Ile Met Thr 135 Val Gly Glu Lys Val Phe Ser Ser Asn Gly Gln Ser Ile Thr Phe Asp 145 150 155 Ala Ile Gln Glu Ala Cys Ala Arg Ala Gly Gly Arg Ile Ala Val Pro 165 170 Arg Asn Pro Glu Glu Asn Glu Ala Ile Ala Ser Phe Val Lys Lys Tyr 185 Asn Thr Tyr Ala Tyr Val Gly Leu Thr Glu Gly Pro Ser Pro Gly Asp 195 200 Phe Arg Tyr Ser Asp Gly Thr Pro Val Asn Tyr Thr Asn Trp Tyr Arg 215 220 Gly Glu Pro Ala Gly Arg Gly Lys Glu Xaa Cys Val Glu Met Tyr Thr 225 230 235 Asp Gly Gln Trp Asn Asp Arg Asn Cys Leu Tyr Ser Arg Leu Thr Ile 245 250 Cys Glu Phe

<210> 474

<211> 231

<212> PRT

<213> Homo sapiens

<400> 474

Gly Thr Val Pro Gly Lys Gly Gln Glu Tyr His Gly Met Gly Met Ser
1 5 10 15

Ser Leu Lys Leu Leu Lys Tyr Val Leu Phe Phe Phe Asn Leu Leu Phe
20 25 30

Trp Ile Cys Gly Cys Cys Ile Leu Gly Phe Gly Ile Tyr Leu Leu Ile 35 40

His Asn Asn Phe Gly Val Leu Phe His Asn Leu Pro Ser Leu Thr Leu Gly Asn Val Phe Val Ile Val Gly Ser Ile Ile Met Val Val Ala Phe Leu Gly Cys Met Gly Ser Ile Lys Glu Asn Lys Cys Leu Leu Met Ser 85 Phe Phe Ile Leu Leu Leu Ile Ile Leu Leu Ala Glu Val Thr Leu Ala 105 Ile Leu Leu Phe Val Tyr Glu Gln Lys Leu Asn Glu Tyr Val Ala Lys 120 Gly Leu Thr Asp Ser Ile His Arg Tyr His Ser Asp Asn Ser Thr Lys Ala Ala Trp Asp Ser Ile Gln Ser Phe Leu Gln Cys Cys Gly Ile Asn 150 155 Gly Thr Ser Asp Trp Thr Ser Gly Pro Pro Ala Ser Cys Pro Ser Asp 165 170 Arg Lys Val Glu Gly Cys Tyr Ala Lys Ala Arg Leu Trp Phe His Ser 185 Asn Phe Leu Tyr Ile Gly Ile Ile Thr Ile Cys Val Cys Val Ile Glu 200 Val Leu Gly Met Ser Phe Ala Leu Thr Leu Asn Cys Gln Ile Asp Lys 215 210 Thr Ser Gln Thr Ile Gly Leu 225 230 <210> 475 <211> 498 <212> PRT <213> Homo sapiens <220> <221> SITE

<223> Xaa equals any of the naturally occurring L-amino acids

<220> <221> SITE <222> (67)

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Thr Glu Asp Trp Arg Pro Arg Pro Gly Thr Gly Gln Ser Arg Ser Phe

200

205

Arg	Ile 210	Leu	Ala	His	Leu	Thr 215	Gly	Thr	Glu	Phe	Met 220	Gln	Asp	Pro	Asp
Glu 225	Glu	His	Leu	Lys	Lys 230	Ser	Ser	Gln	Val	Pro 235	Arg	Thr	Glu	Ala	Pro 240
Ala	Pro	Ala	Ser	Ser 245	Thr	Pro	Gln	Glu	Pro 250	Trp	Pro	Gly	Pro	Thr 255	Ala
Pro	Ser	Pro	Thr 260	Ser	Arg	Pro	Pro	Trp 265	Ala	Val	Asp	Pro	Ala 270	Phe	Ala
Glu	Arg	Туг 275	Ala	Pro	Asp	Lys	Thr 280	Ser	Thr	Val	Leu	Thr 285	Arg	His	Ser
Gln	Pro 290	Ala	Thr	Pro	Thr	Pro 295	Leu	Gln	Ser	Arg	Thr 300	Ser	Ile	Val	Gln
Ala 305	Ala	Ala	Gly	Gly	Val 310	Pro	Gly	Gly	Gly	Ser 315	Asn	Asn	Gly	Lys	Thr 320
Pro	Val	Cys	His	Gln 325	Суѕ	His	Lys	Val	11e 330	Arg	Gly	Arg	туr	Leu 335	Val
Ala	Leu	Gly	His 340	Ala	Tyr	His	Pro	Glu 345	Glu	Phe	Val	Cys	Ser 350	Gln	Cys
Gly	Lys	Val 355	Leu	Glu	Glu	Gly	Gly 360	Phe	Phe	Glu	Glu	Lys 365	Gly	Ala	Ile
Phe	Cys 370	Pro	Pro	Cys	Tyr	Asp 375	Val	Arg	Tyr	Ala	Pro 380	Ser	Cys	Ala	Lys
Cys 385	Lys	Lys	Lys	Ile	Thr 390	Gly	Glu	Ile	Met	His 395	Ala	Leu	Lys	Met	Thr 400
Trp	His	Val	His	Cys 405	Phe	Thr	Cys	Ala	Ala 410	Cys	Lys	Thr	Pro	Ile 415	Arg
Asn	Arg	Ala	Phe 420	Ţуr	Met	Glu	Glu	Gly 425	Val	Pro	Tyr	Cys	Glu 430	Arg	Asp
Tyr	Glu	Lys 435	Met	Phe	Gly	Thr	Lys 440	Cys	His	Gly	Cys	Asp 445	Phe	Lys	Ile
Asp	Ala 450	Gly	Asp	Arg	Phe	Leu 455	Glu	Ala	Leu	Gly	Phe 460	Ser	Trp	His	Asp
Thr 465	Cys	Phe	Val	Cys	Ala 470	Ile	Cys	Gln	Ile	Asn 475	Leu	Glu	Gly	Lys	Thr 480

Phe Tyr Ser Lys Lys Asp Arg Pro Leu Cys Lys Ser His Ala Phe Ser 485 490 495

His Val

<210> 476

<211> 268

<212> PRT

<213> Homo sapiens

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<223> Xaa equals any of the naturally occurring L-amino acids

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<400> 476

Gln Glu Ala Ala Ser Leu Gly Ala Val Thr Ser Cys Gly Gln Glu Ser
1 5 10 15

Leu Ser Arg Ala Ser Pro Arg Ser Leu Ser Arg Phe Leu Leu Thr Ala 20 25 30

His Pro Pro Ala Ala Ala Met Arg His Leu Gly Ala Phe Leu Phe Leu 35 40 45

Leu Gly Val Leu Gly Ala Leu Thr Glu Met Cys Glu Ile Pro Glu Met 50 55 60

Asp Ser His Leu Val Glu Lys Leu Gly Gln His Leu Leu Pro Trp Met 65 70 75 80

Asp Arg Leu Ser Leu Glu His Leu Asn Pro Ser Ile Tyr Val Gly Leu 85 90 95

Arg Leu Ser Ser Leu Gln Ala Gly Thr Lys Glu Asp Leu Tyr Leu His 100 105 110

Ser Leu Lys Leu Gly Tyr Gln Gln Cys Leu Leu Gly Ser Ala Phe Ser 115 120 Glu Asp Asp Gly Asp Cys Gln Gly Lys Pro Ser Met Gly Gln Leu Ala 130 135 140 Ser Xaa Leu Leu Ala Leu Arg Ala Asn Cys Glu Phe Val Xaa Gly His 150 155 Lys Gly Asp Xaa Leu Val Ser Gln Leu Lys Trp Phe Leu Glu Asp Glu 170 Lys Arg Ala Ile Gly His Asp His Lys Gly His Pro His Thr Ser Tyr 185 Tyr Gln Tyr Gly Leu Gly Ile Leu Ala Leu Cys Leu His Gln Lys Arg 200 Val His Asp Ser Val Val Asp Lys Leu Leu Tyr Ala Val Glu Pro Phe 215 220 His Gln Gly His His Ser Val Asp Thr Ala Ala Met Ala Gly Leu Ala 225 230 Phe Thr Cys Leu Lys Arg Ser Asn Phe Asn Pro Gly Arg Arg His Gly 245 250 Ser Pro Trp Pro Ser Glu Gln Cys Glu Arg Arg Ser 265

<210> 477

Cys	Gln	Ala	Arg 20	Ile	Ile	ser	Gly	Ile 25	His	Met	Gln	Thr	Ser 30	Glu	Ser
Thr	Lys	Ser 35	Glu	Leu	Val	Thr	Val 40	Thr	Glu	Ser	Phe	Ser 45	Thr	Pro	Lys
Phe	His 50	Ile	Ser	Pro	Thr	Gly 55	Met	Ile	Met	Glu	Gly 60	Ala	Gln	Leu	His
Ile 65	Lys	Cys	Thr	Ile	Gln 70	Val	Thr	His	Leu	Ala 75	Gln	Glu	Phe	Pro	Glu 80
Ile	Ile	Ile	Gln	Lys 85	Asp	Lys	Ala	Ile	Val 90	Ala	His	Asn	Arg	His 95	Gly
Asn	Lys	Ala	Val 100	Tyr	Ser	Val	Met	Ala 105	Met	Val	Glu	His	Ser 110	Gly	Asn
Tyr	Thr	Cys 115	Lys	Val	Glu	Ser	Ser 120	Arg	Ile	Ser	Lys	Val 125	Ser	Ser	Ile
Val	Val 130	Asn	Ile	Thr	Glu	Leu 135	Phe	Ser	Lys	Pro	Glu 140	Leu	Glu	Ser	Ser
Phe 145	Thr	His	Leu	Asp	Gln 150	Gly	Glu	Arg	Leu	Asn 155	Leu	Ser	Cys	Ser	Ile 160
Pro	Gly	Ala	Pro	Pro 165	Ala	Asn	Phe	Thr	Ile 170	Gln	Lys	Glu	Asp	Thr 175	Ile
Val	Ser	Gln	Thr 180	Gln	Asp	Phe	Thr	Lys 185	Ile	Ala	Ser	Lys	Ser 190	Asp	Ser
Gly	Thr	Туг 195	Ile	Cys	Thr	Ala	Gly 200	Ile	Asp	Lys	Val	Val 205	Lys	Lys	Ser
Asn	Thr 210	Val	Gln	Ile	Val	Val 215	Cys	Xaa	Met	Leu	Ser 220	Gln	Pro	Arg	Xaa
Ser 225	Tyr	Asp	Ala	Gln	Phe 230	Glu	Val	Ile	Lys	Gly 235	Gln	Thr	Ile	Glu	Val 240
Arg	Cys	Glu	Ser	Ile 245	Ser	Gly	Thr	Leu	Pro 250	Ile	Ser	Tyr	Gln	Leu 255	Leu
Lys	Thr	Ser	Lys 260	Val	Leu	Glu	Asn	Ser 265	Thr	Lys	Asn	Ser	Asn 270	Asp	Pro
Ala	Val	Phe 275	Lys	Asp	Asn	Pro	Thr 280	Glu	Asp	Val	Glu	туг 285	Gln	Суз	Val

Ala	Asp 290	Asn	Cys	His	Ser	His 295	Ala	Lys	Met	Leu	Ser 300	Glu	Val	Leu	Arg
Val 305	Lys	Val	Ile	Ala	Pro 310	Val	Asp	Glu	Val	Gln 315	Ile	Ser	Ile	Leu	Ser 320
Ser	Lys	Val	Val	Glu 325	Ser	Gly	Glu	Asp	Ile 330	Val	Leu	Gln	Cys	Ala 335	Val
Asn	Glu	Gly	Ser 340	Gly	Pro	Ile	Thr	Tyr 345	Lys	Phe	туг	Arg	Glu 350	Lys	Glu
Gly	Lys	Pro 355	Phe	Туг	Gln	Met	Thr 360	Ser	Asn	Ala	Thr	Gln 365	Ala	Phe	Trp
Thr	Lys 370	Gln	Lys	Ala	Ser	Lys 375	Glu	Gln	Glu	Gly	Glu 380	Tyr	Tyr	Суз	Thr
Ala 385	Phe	Asn	Arg	Ala	Asn 390	His	Ala	Ser	Ser	Val 395	Pro	Arg	Ser	Lys	Ile 400
Leu	Thr	Val	Arg	Val 405	Ile	Leu	Ala	Pro	Trp 410	Lys	Lys	Gly	Leu	Ile 415	Ala
Val	Val	Ile	Ile 420	Gly	Val	Ile	Ile	Ala 425	Leu	Leu	Ile	Ile	Ala 430	Ala	Lys
Cys	Tyr	Phe 435	Leu	Arg	Lys	Ala	Lys 440	Ala	Lys	Gln	Met	Pro 445	Val	Glu	Met
Ser	Arg 450	Pro	Ala	Val	Pro	Leu 455	Leu	Asn	Ser	Asn	Asn 460	Glu	Lys	Met	Ser
Asp 465	Pro	Asn	Met	Glu	Ala 470	Asn	Ser	His	Tyr	Gly 475	His	Asn	Asp	Asp	Val 480
Arg	Asn	His	Ala	Met 485	Lys	Pro	Ile	Asn	Asp 490	Asn	Lys	Glu	Pro	Leu 495	Asn
Ser	Asp	Val	Gln 500	Tyr	Thr	Glu	Val	Gln 505	Val	Ser	Ser	Ala	Glu 510	Ser	His
Lys	Asp	Leu 515	Gly	Lys	Lys	Asp	Thr 520	Glu	Thr	Val	Tyr	Ser 525	Glu	Val	Arg
Lys	Ala 530	Val	Pro	Asp	Ala	Val 535	Glu	Ser	Arg	Tyr	Ser 540	Arg	Thr	Glu	Gly
Ser	Leu	Asp	Gly	Thr											

<210> 478 <211> 364 <212> PRT <213> Homo sapiens

<400> 478

Gly Arg Val Gly Gly Arg Val Gly Gly Pro Trp Val Ala Ala Thr Ser 1 5 10 15

Ala Asp Pro Glu Arg Lys Ser Gln Ala Ala Ser Ala Ala Met Trp Ala 20 25 30

Thr Leu Pro Leu Leu Cys Ala Gly Ala Trp Leu Leu Gly Val Pro Val 35 40 45

Cys Gly Ala Ala Glu Leu Ser Val Asn Ser Leu Glu Lys Phe His Phe 50 55 60

Lys Ser Trp Met Ser Lys His Arg Lys Thr Tyr Ser Thr Glu Glu Tyr
65 70 75 80

His His Arg Leu Gln Thr Phe Ala Ser Asn Trp Arg Lys Ile Asn Ala 85 90 95

His Asn Asn Gly Asn His Thr Phe Lys Met Ala Leu Asn Gln Phe Ser 100 105 110

Asp Met Ser Phe Ala Glu Ile Lys His Lys Tyr Leu Trp Ser Glu Pro 115 120 125

Gln Asn Cys Ser Ala Thr Lys Ser Asn Tyr Leu Arg Gly Thr Gly Pro 130 135 140

Tyr Pro Pro Ser Val Asp Trp Arg Lys Lys Gly Asn Phe Val Ser Pro 145 150 155 160

Val Lys Asn Gln Gly Ala Cys Gly Ser Cys Trp Thr Phe Ser Thr Thr 165 170 175

Gly Ala Leu Glu Ser Ala Ile Ala Ile Ala Thr Gly Lys Met Leu Ser 180 185 190

Leu Ala Glu Gln Gln Leu Val Asp Cys Ala Gln Asp Phe Asn Asn His 195 200 205

Gly Cys Gln Gly Gly Leu Pro Ser Gln Ala Phe Glu Tyr Ile Leu Tyr 210 215 220

Asn Lys Gly Ile Met Gly Glu Asp Thr Tyr Pro Tyr Gln Gly Lys Asp

225 230 240 235 Gly Tyr Cys Lys Phe Gln Pro Gly Lys Ala Ile Gly Phe Val Lys Asp Val Ala Asn Ile Thr Ile Tyr Asp Glu Glu Ala Met Val Glu Ala Val 260 265 Ala Leu Tyr Asn Pro Val Ser Phe Ala Phe Glu Val Thr Gln Asp Phe 275 280 Met Met Tyr Arg Thr Gly Ile Tyr Ser Ser Thr Ser Cys His Lys Thr 295 Pro Asp Lys Val Asn His Ala Val Leu Ala Val Gly Tyr Gly Glu Lys 310 315 Asn Gly Ile Pro Tyr Trp Ile Val Lys Asn Ser Trp Gly Pro Gln Trp 325 330 Gly Met Asn Gly Tyr Phe Leu Ile Glu Arg Gly Lys Asn Met Cys Gly 345 Leu Ala Ala Cys Ala Ser Tyr Pro Ile Pro Leu Val 355 360 <210> 479 <211> 451 <212> PRT <213> Homo sapiens <220> <221> SITE <222> (266) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (271) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (388) <223> Xaa equals any of the naturally occurring L-amino acids <400> 479 Ser Thr His Ala Ser Ala His Ala Ser Ala Ala Thr Gln Ser Cys Asn 10

Leu	Ser	Leu	Ala 20	Met	Ala	Pro	Ser	Ser 25		Arg	Pro	Ala	Leu 30	Pro	Ala
Leu	Leu	Val 35	Leu	Leu	Gly	Ala	Leu 40	Phe	Pro	Gly	Pro	Gly 45	Asn	Ala	Gln
Thr	Ser 50	Val	Ser	Pro	Ser	Lys 55	Val	Ile	Leu	Pro	Arg 60	Gly	Gly	Ser	Val
Leu 65		Thr	Cys	Ser	Thr 70	Ser	Cys	Asp	Gln	Pro 75	Lys	Leu	Leu	Gly	Ile 80
Glu	Thr	Pro	Leu	Pro 85	Lys	Lys	Glu	Leu	Leu 90	Leu	Pro	Gly	Asn	Asn 95	Arg
Lys	Val	Tyr	Glu 100	Leu	Ser	Asn	Val	Gln 105	Glu	Asp	Ser	Gln	Pro 110	Met	Cys
Tyr	Ser	Asn 115	Cys	Pro	Asp	Gly	Gln 120	Ser	Thr	Ala	Lys	Thr 125	Phe	Leu	Thr
Val	Tyr 130	Trp	Thr	Pro	Glu	Arg 135	Val	Glu	Leu	Ala	Pro 140	Leu	Pro	Ser	Trp
Gln 145	Pro	Val	Gly	Lys	Asn 150	Leu	Thr	Leu	Arg	Cys 155	Gln	Val	Glu	Gly	Gly 160
Ala	Pro	Arg	Ala	Asn 165	Leu	Thr	Val	Val	Leu 170	Leu	Arg	Gly	Glu	Lys 175	Glu
Leu	Lys	Arg	Glu 180	Pro	Ala	Val	Gly	Glu 185	Pro	Ala	Glu	Val	Thr 190	Thr	Thr
Val	Leu	Val 195	Arg	Arg	Asp	His	His 200	Gly	Ala	Asn	Phe	Ser 205	Cys	Arg	Thr
Glu	Leu 210	Asp	Leu	Arg	Pro	Gln 215	Gly	Leu	Glu	Leu	Phe 220	Glu	Asn	Thr	Ser
Ala 225	Pro	Tyr	Gln	Leu	Gln 230	Thr	Phe	Val	Leu	Pro 235	Ala	Thr	Pro	Pro	Gln 240
Leu	Val	Ser	Pro	Arg 245	Val	Leu	Glu	Val	Asp 250	Thr	Gln	Gly	Thr	Val 255	Val
Cys	Ser	Leu	Asp 260	Gly	Leu	Phe	Pro	Val 265	Xaa	Glu	Ala	Gln	Val 270	Xaa	Leu
Ala	Leu	Gly 275	Asp	Gln	Arg	Leu	Asn 280	Pro	Thr	Val	Thr	Tyr 285	Gly	Asn	Asp

Ser Phe Ser Ala Lys Ala Ser Val Ser Val Thr Ala Glu Asp Glu Gly 290 295 300 Thr Gln Arg Leu Thr Cys Ala Val Ile Leu Gly Asn Gln Ser Gln Glu Thr Leu Gln Thr Val Thr Ile Tyr Ser Phe Pro Ala Pro Asn Val Ile 330 325 Leu Thr Lys Pro Glu Val Ser Glu Gly Thr Glu Val Thr Val Lys Cys 345 340 Glu Ala His Pro Arg Ala Lys Val Thr Leu Asn Gly Val Pro Ala Gln 360 Pro Leu Gly Pro Arg Ala Ser Cys Leu Leu Lys Ala Thr Pro Glu Asp 375 Asn Gly Arg Xaa Ser Pro Ala Leu Gln Pro Trp Arg Trp Pro Ala Ser 385 390 395 Leu Tyr Thr Arg Thr Arg Pro Gly Ser Phe Val Ser Cys Met Ala Pro 405 410 Asp Trp Thr Arg Gly Ile Val Arg Glu Thr Gly Arg Gly Gln Lys Ile 425 Pro Ser Arg Leu Gln Cys Ala Arg Leu Gly Gly Thr His Cys Pro Ser 435 440 Ser Ser Val 450 <210> 480 <211> 278 <212> PRT <213> Homo sapiens <400> 480 Gly Tyr Cys Thr His Pro Ser Phe Ile Ser Leu Gln His Leu Phe Leu

10

Glu Gly Val Asn Thr Asn Ser Ser Asp Leu Gly Ser Leu Pro Glu Lys
20 25 30

Met Gln Pro Phe Leu Leu Leu Leu Ala Phe Leu Leu Thr Pro Gly Ala

40

Gly Thr Glu Glu Ile Ile Gly Gly His Glu Ala Lys Pro His Ser Arg Pro Tyr Met Ala Phe Val Gln Phe Leu Gln Glu Lys Ser Arg Lys Arg 70 75 Cys Gly Gly Ile Leu Val Arg Lys Asp Phe Val Leu Thr Ala Ala His Cys Gln Gly Ser Ser Ile Asn Val Thr Leu Gly Ala His Asn Ile Lys 105 Glu Gln Glu Arg Thr Gln Gln Phe Ile Pro Val Lys Arg Pro Ile Pro 125 115 120 His Pro Ala Tyr Asn Pro Lys Asn Phe Ser Asn Asp Ile Met Leu Leu 135 Gln Leu Glu Arg Lys Ala Lys Trp Thr Thr Ala Val Arg Pro Leu Arg 150 155 Leu Pro Ser Ser Lys Ala Gln Val Lys Pro Gly Gln Leu Cys Ser Val 165 Ala Gly Trp Gly Tyr Val Ser Met Ser Thr Leu Ala Thr Thr Leu Gln 185 Glu Val Leu Leu Thr Val Gln Lys Asp Cys Gln Cys Glu Arg Leu Phe 200 His Gly Asn Tyr Ser Arg Ala Thr Glu Ile Cys Val Gly Asp Pro Lys 210 215 Lys Thr Gln Thr Gly Phe Lys Gly Asp Ser Gly Gly Pro Leu Val Cys Lys Asp Val Ala Gln Gly Ile Leu Ser Tyr Gly Asn Lys Lys Gly Thr 250 Pro Pro Gly Val Tyr Ile Lys Val Ser His Phe Leu Pro Trp Ile Lys

265

270

Arg Thr Met Lys Arg Leu 275

260

<210> 481

<211> 119

<212> PRT

<213> Homo sapiens

<220> <221> SITE <222> (79) <223> Xaa equals any of the naturally occurring L-amino acids <400> 481 Asn Ser Leu Ser Pro Ser Pro Trp Ser His Trp Leu Ser Ala Ala Ala Pro Leu Leu Gln Arg Ser Ala Arg Ala Phe Ser Val Val Ile Glu Thr 25 20 Leu Leu Met Asp Thr Pro Ser Ser Tyr Glu Ala Ala Met Glu Leu Phe 40 Ser Pro Asp Gln Asp Met Arg Glu Ala Gly Ala Gln Leu Lys Lys Leu Val Asp Thr Leu Pro Gln Lys Pro Arg Glu Ser Ile Ile Lys Xaa Met Gly Lys Asn Ser Pro Lys Leu Thr Val Leu Ile Arg His Phe Arg Lys Leu Glu Asp Pro Pro Thr Gly Ser Ser Leu Leu Pro Leu Pro Trp Phe 105 Leu Glu Phe His Gly Pro Pro 115 <210> 482 <211> 216 <212> PRT <213> Homo sapiens <220> <221> SITE <222> (5) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <223> Xaa equals any of the naturally occurring L-amino acids

Lys Val Arg Leu Xaa Val Pro Xaa Arg Asn Ser Arg Val Asp Pro Arg

10

<400> 482

Val Arg Glu His Ser Thr Cys Ser Lys Met Asp Val Gly Ser Lys Glu 25 20 Val Leu Met Glu Ser Pro Pro Asp Tyr Ser Ala Ala Pro Arg Gly Arg 40 Phe Gly Ile Pro Cys Cys Pro Val His Leu Lys Arg Leu Leu Ile Val Val Val Val Val Leu Ile Val Val Ile Val Gly Ala Leu Leu 65 Met Gly Leu His Met Ser Gln Lys His Thr Glu Met Val Leu Glu Met 90 Ser Ile Gly Ala Pro Glu Ala Gln Gln Arg Leu Ala Leu Ser Glu His 105 Leu Val Thr Thr Ala Thr Phe Ser Ile Gly Ser Thr Gly Leu Val Val 115 120 Tyr Asp Tyr Gln Gln Leu Leu Ile Ala Tyr Lys Pro Ala Pro Gly Thr Cys Cys Tyr Ile Met Lys Ile Ala Pro Glu Ser Ile Pro Ser Leu Glu 150 155 Ala Leu Thr Arg Lys Val His Asn Phe Gln Ala Lys Pro Ala Val Pro 165 170 Thr Ser Lys Leu Gly Gln Ala Glu Gly Arg Asp Ala Gly Ser Ala Pro 185 Ser Gly Gly Asp Pro Ala Phe Leu Gly Met Ala Val Ser Thr Leu Cys

<210> 483

210

<211> 57

<212> PRT

<213> Homo sapiens

Gly Glu Val Pro Leu Tyr Tyr Ile

215

<400> 483

Gly Ser Gln Glu Met Thr Ala Asp Leu Ser Pro Glu Gly Phe Met Leu
1 5 10 15

Gly Val Glu Gly Ile Leu Leu Arg Leu Leu Gly Tyr Gln Glu Thr Gln 20 25 30

Pro Phe Pro Cys Glu Tyr Leu Ile Leu Leu Leu Val Ser Val Gln Leu
35 40 45

Leu Leu Asn Asn Arg Gln His Glu Glu 50 55

<210> 484

<211> 332

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (204)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 484

Leu Ala Cys Val Ser Pro Trp Met Asp Met Trp Thr Ala Leu Leu Ile 1 5 10 15

Leu Gln Ala Leu Leu Pro Ser Leu Ala Asp Gly Ala Thr Pro Ala 20 25 30

Leu Arg Phe Val Ala Val Gly Asp Trp Gly Gly Val Pro Asn Ala Pro 35 40 45

Phe His Thr Ala Arg Glu Met Ala Asn Ala Lys Glu Ile Ala Arg Thr 50 55 60

Val Gln Ile Leu Gly Ala Asp Phe Ile Leu Ser Leu Gly Asp Asn Phe
65 70 75 80

Tyr Phe Thr Gly Val Gln Asp Ile Asn Asp Lys Arg Phe Gln Glu Thr 85 90 95

Phe Glu Asp Val Phe Ser Asp Arg Ser Leu Arg Lys Val Pro Trp Tyr
100 105 110

Val Leu Ala Gly Asn His Asp His Leu Gly Asn Val Ser Ala Gln Ile 115 120 125

Ala Tyr Ser Lys Ile Ser Lys Arg Trp Asn Phe Pro Ser Pro Phe Tyr 130 135 140

Arg Leu His Phe Lys Ile Pro Gln Thr Asn Val Ser Val Ala Ile Phe 145 150 155 160

Met Leu Asp Thr Val Thr Leu Cys Gly Asn Ser Asp Asp Phe Leu Ser 170 165 Gln Gln Pro Glu Arg Pro Arg Asp Val Lys Leu Ala Arg Thr Gln Leu 185 Ser Trp Leu Lys Lys Gln Leu Ala Ala Ala Arg Xaa Asp Tyr Val Leu 200 Val Ala Gly His Tyr Pro Val Trp Ser Ile Ala Glu His Gly Pro Thr 210 215 His Cys Leu Val Lys Gln Leu Arg Pro Leu Leu Ala Thr Tyr Gly Val 230 Thr Ala Tyr Leu Cys Gly His Asp His Asn Leu Gln Tyr Leu Gln Asp Glu Asn Gly Val Gly Tyr Val Leu Ser Gly Ala Gly Asn Phe Met Asp 260 265 Pro Ser Lys Arg His Gln Arg Lys Val Pro Asn Gly Tyr Leu Arg Phe 280 His Tyr Gly Thr Glu Asp Ser Leu Gly Gly Phe Ala Tyr Val Glu Ile 295 Ser Ser Lys Glu Met Thr Val Thr Tyr Ile Glu Ala Ser Gly Lys Ser 305 310 Leu Phe Lys Thr Arg Leu Pro Arg Arg Ala Arg Pro 325 <210> 485 <211> 431 <212> PRT

<213> Homo sapiens

<220>
<221> SITE
<222> (263)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (264)
<223> Xaa equals any of the naturally occurring L-amino acids

<400> 485 Ser Thr Ser Arg Ala Cys Pro Glu Leu Arg Gly Ser Glu Asp Leu Ser Thr Met Glu Arg Ala Ser Cys Leu Leu Leu Leu Leu Pro Leu Val His Val Ser Ala Thr Thr Pro Glu Pro Cys Glu Leu Asp Asp Glu Asp 40 Phe Arg Cys Val Cys Asn Phe Ser Glu Pro Gln Pro Asp Trp Ser Glu Ala Phe Gln Cys Val Ser Ala Val Glu Val Glu Ile His Ala Gly Gly 70 Leu Asn Leu Glu Pro Phe Leu Lys Arg Val Asp Ala Asp Ala Asp Pro Arg Gln Tyr Ala Asp Thr Val Lys Ala Leu Arg Val Arg Arg Leu Thr Val Gly Ala Ala Gln Val Pro Ala Gln Leu Leu Val Gly Ala Leu Arg 120 Val Leu Ala Tyr Ser Arg Leu Lys Glu Leu Thr Leu Glu Asp Leu Lys 135 Ile Thr Gly Thr Met Pro Pro Leu Pro Leu Glu Ala Thr Gly Leu Ala 145 150 155 Leu Ser Ser Leu Arg Leu Arg Asn Val Ser Trp Ala Thr Gly Arg Ser Trp Leu Ala Glu Leu Gln Gln Trp Leu Lys Pro Gly Leu Lys Val Leu 185 Ser Ile Ala Gln Ala His Ser Pro Ala Phe Ser Cys Glu Gln Val Arg 195 200 Ala Phe Pro Ala Leu Thr Ser Leu Asp Leu Ser Asp Asn Pro Gly Leu 215 Gly Glu Arg Gly Leu Met Ala Ala Leu Cys Pro His Lys Phe Pro Ala 225 235 230 Ile Gln Asn Leu Ala Leu Arg Asn Thr Gly Met Glu Thr Pro Thr Gly Val Cys Ala Ala Leu Ala Xaa Xaa Gly Val Gln Pro His Ser Leu Asp

Leu Ser His Asn Ser Leu Arg Ala Thr Val Asn Pro Ser Ala Pro Arg 275 280 Cys Met Trp Ser Ser Ala Leu Asn Ser Leu Asn Leu Ser Phe Ala Gly 295 Leu Glu Gln Val Pro Lys Gly Leu Pro Ala Lys Leu Arg Val Leu Asp 310 315 Leu Ser Cys Asn Arg Leu Asn Arg Ala Pro Gln Pro Asp Glu Leu Pro 325 330 Glu Val Asp Asn Leu Thr Leu Asp Gly Asn Pro Phe Leu Val Pro Gly 345 Thr Ala Leu Pro His Glu Gly Ser Met Asn Ser Gly Val Val Pro Ala 360 Cys Ala Arg Ser Thr Leu Ser Val Gly Val Ser Gly Thr Leu Val Leu 370 375 Leu Gln Gly Ala Arg Ala Leu Pro Lys Ile Gln Asp Arg Ile Met Asn 385 390 395 Gly Leu Lys Leu Pro Trp Leu Gln Gly Ser Pro Val Arg Thr Leu Arg 410 Thr Phe Arg Pro Ile Gln Pro Phe Ala Pro Pro Leu Leu Lys Ser 420 425 <210> 486 <211> 510 <212> PRT <213> Homo sapiens <220> <221> SITE <222> (145) <223> Xaa equals any of the naturally occurring L-amino acids

His Glu Glu Thr Gln Ser Phe Ser Ser Ala Lys Met Lys His Ser Leu

Asn Ala Leu Leu Ile Phe Leu Ile Ile Thr Ser Ala Trp Gly Gly Ser

Lys Gly Pro Leu Asp Gln Leu Glu Lys Gly Gly Glu Thr Ala Gln Ser

35 40 45 Ala Asp Pro Gln Trp Glu Gln Leu Asn Asn Lys Asn Leu Ser Met Pro 55 Leu Leu Pro Ala Asp Phe His Lys Glu Asn Thr Val Thr Asn Asp Trp 70 75 Ile Pro Glu Gly Glu Glu Asp Asp Tyr Leu Asp Leu Glu Lys Ile Phe Ser Glu Asp Asp Asp Tyr Ile Asp Ile Val Asp Ser Leu Ser Val Ser Pro Thr Asp Ser Asp Val Ser Ala Gly Asn Ile Leu Gln Leu Phe 115 120 His Gly Lys Ser Arg Ile Gln Arg Leu Asn Ile Leu Asn Ala Lys Phe 135 Xaa Phe Asn Leu Tyr Arg Val Leu Lys Asp Gln Val Asn Thr Phe Asp 150 155 Asn Ile Phe Ile Ala Pro Val Gly Ile Ser Thr Ala Met Gly Met Ile Ser Leu Gly Leu Lys Gly Glu Thr His Glu Gln Val His Ser Ile Leu 180 185 His Phe Lys Asp Phe Val Asn Ala Ser Ser Lys Tyr Glu Ile Thr Thr 200 Ile His Asn Leu Phe Arg Lys Leu Thr His Arg Leu Phe Arg Arg Asn 210 215 220 Phe Gly Tyr Thr Leu Arg Ser Val Asn Asp Leu Tyr Ile Gln Lys Gln 230 Phe Pro Ile Leu Leu Asp Phe Lys Thr Lys Val Arg Glu Tyr Tyr Phe 250 Ala Glu Ala Gln Ile Ala Asp Phe Ser Asp Pro Ala Phe Ile Ser Lys 260 265 270 Thr Asn Asn His Ile Met Lys Leu Thr Lys Gly Leu Ile Lys Asp Ala 275 280 Leu Glu Asn Ile Asp Pro Ala Thr Gln Met Met Ile Leu Asn Cys Ile 295

Tyr Phe Lys Gly Ser Trp Val Asn Lys Phe Pro Val Glu Met Thr His

305	310	315	320
Asn His Asn Phe	Arg Leu Asn (Glu Arg Glu Val Val 330	Lys Val Ser Met 335
Met Gln Thr Lys	Gly Asn Phe	Leu Ala Ala Asn Asp 345	Gln Glu Leu Asp 350
Cys Asp Ile Leu 355		Tyr Val Gly Gly Ile 360	Ser Met Leu Ile 365
Val Val Pro His 370	Lys Met Ser (Gly Met Lys Thr Leu 380	
Thr Pro Arg Val	Val Glu Arg 5	Trp Gln Lys Ser Met 395	Thr Asn Arg Thr 400
Arg Glu Val Leu	Leu Pro Lys 1	Phe Lys Leu Glu Lys 410	Asn Tyr Asn Leu 415
Val Glu Ser Leu 420	Lys Leu Met (Gly Ile Arg Met Leu 425	Phe Asp Lys Asn 430
Gly Asn Met Ala 435	-	Asp Gln Arg Ile Ala 440	Ile Asp Leu Phe 445
Lys His Gln Gly 450	Thr Ile Thr \455	Val Asn Glu Glu Gly 460	
Thr Val Thr Thr 465	Val Gly Phe 1 470	Met Pro Leu Ser Thr 475	Gln Val Arg Phe 480
Thr Val Asp Arg	Pro Phe Leu 1 485	Phe Leu Ile Tyr Glu 490	His Arg Thr Ser 495
Cys Leu Leu Phe 500	Met Gly Arg V	Val Ala Asn Pro Ser 505	Arg Ser 510
<210> 487			

<212> PRT

<211> 190

<213> Homo sapiens

<220>

<221> SITE

<222> (106)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 487

His Leu Arg Arg Gln Gln Asp Thr Leu Ser Thr Ala Leu Gln Trp Leu Leu Leu Phe Thr Arg Tyr Pro Asp Val Gln Thr Arg Val Gln Ala 25 20 Glu Leu Asp Gln Val Val Gly Arg Asp Arg Leu Pro Cys Met Gly Asp 40 Gln Pro Asn Leu Pro Tyr Val Leu Ala Phe Leu Tyr Glu Ala Met Arg 55 Phe Ser Ser Phe Val Pro Val Thr Ile Pro His Ala Thr Thr Ala Asn 65 70 75 Thr Ser Val Leu Gly Tyr His Ile Pro Lys Asp Thr Val Val Phe Val 90 Asn Gln Trp Ser Val Asn His Asp Pro Xaa Lys Trp Pro Asn Pro Glu 100 105 Asn Phe Asp Pro Ala Arg Phe Leu Asp Lys Asp Gly Leu Ile Asn Lys 115 Asp Leu Thr Ser Arg Val Met Ile Phe Ser Val Gly Lys Arg Arg Cys 135 Ile Gly Glu Glu Leu Ser Lys Met Gln Leu Phe Leu Phe Ile Ser Ile 150 155 Leu Ala His Gln Cys Asp Phe Arg Ala Asn Pro Asn Glu Pro Ala Lys 165 170 Met Asn Phe Ser Tyr Gly Leu Thr Ile Lys Pro Lys Cys Ile 180 185

<210> 488 <211> 159 <212> PRT <213> Homo sapiens <220> <221> SITE

<222> (129)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 488
Lys Met Gln Ala Pro Ala Phe Arg Asp Lys Lys Gln Gly Val Ser Ala
1 5 10 15

Lys Asn Gln Gly Ala His Asp Pro Asp Tyr Glu Asn Ile Thr Leu Ala 20 \$25\$ 30

Phe Lys Asn Gln Asp His Ala Lys Gly Gly His Ser Arg Pro Thr Ser 35 40 45

Gln Val Pro Ala Gln Cys Arg Pro Pro Ser Asp Ser Thr Gln Val Pro 50 55 60

Cys Trp Leu Tyr Arg Ala Ile Leu Ser Leu Tyr Ile Leu Leu Ala Leu 65 70 75 80

Ala Phe Val Leu Cys Ile Ile Leu Ser Ala Phe Ile Met Val Lys Asn 85 90 95

Ala Glu Met Ser Lys Glu Leu Leu Gly Phe Lys Arg Glu Leu Trp Asn 100 105 110

Val Ser Asn Ser Val Gln Ala Cys Glu Glu Arg Gln Lys Arg Gly Trp 115 120 125

Xaa Ser Val Gln Gln Ser Ile Thr Met Val Arg Ser Lys Ile Asp Arg 130 135 140

Leu Glu Thr Thr Leu Ala Gly Ile Lys Asn Ile Asp Thr Lys Val 145 150 155

<210> 489

<211> 284

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (265)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (282)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 489

Glu Arg Glu Arg Glu Arg Glu Arg Gly Val Pro Gly Ala Glu
1 5 10 15

Ser Glu Met Ser Ser Ser Gly Thr Pro Asp Leu Pro Val Leu Leu Thr

Asp	Leu	Lys 35	Ile	Gln	Tyr	Thr	Lys 40	Ile	Phe	Ile	Asn	Asn 45	Glu	Trp	His
Asp	Ser 50	Val	Ser	Gly	Lys	Lys 55	Phe	Pro	Val	Phe	Asn 60	Pro	Ala	Thr	Glu
Glu 65	Glu	Leu	Cys	Gln	Val 70	Glu	Glu	Gly	Asp	Lys 75	Glu	Asp	Val	Asp	Lys 80
Ala	Val	Lys	Ala	Ala 85	Arg	Gln	Ala	Phe	Gln 90	Ile	Gly	Ser	Pro	Trp 95	Arg
Thr	Met	Asp	Ala 100	Ser	Glu	Arg	Gly	Arg 105	Leu	Leu	Tyr	Lys	Leu 110	Ala	Asp
Leu	Ile	Glu 115	Arg	Asp	Arg	Leu	Leu 120	Leu	Ala	Thr	Met	Glu 125	Ser	Met	Asn
Gly	Gly 130	Lys	Leu	Tyr	Ser	Asn 135	Ala	Tyr	Leu	Asn	Asp 140	Leu	Ala	Gly	Cys
Ile 145	Lys	Thr	Leu	Arg	Туг 150	Cys	Ala	Gly	Trp	Ala 155	Asp	Lys	Ile	Gln	Gly 160
Arg	Thr	Ile	Pro	11e 165	Asp	Gly	Asn	Phe	Phe 170	Thr	Tyr	Thr	Arg	His 175	Glu
Pro	Ile	Gly	Val 180	Cys	Gly	Gln	Ile	Ile 185	Pro	Trp	Asn	Phe	Pro 190	Leu	Val
Met	Leu	Ile 195	Trp	Lys	Ile	Gly	Pro 200	Ala	Leu	Ser	Cys	Gly 205	Asn	Thr	Val
Gly	Cys 210	Gln	Thr	Ser	Arg	Ala 215	Asn	Ser	Ser	His	Cys 220	Ser	Pro	Arg	Gly
Ile 225	Phe	Asn	Lys	Arg	Gly 230	Arg	Val	Ser	Ser	Trp 235	Ser	Ser	Glu	Tyr	Cys 240
Ser	Trp	Leu	Trp	Ala 245	Туr	Ser	Arg	Gly	Ser 250	His	Phe	Phe	Ser	His 255	Gly
Tyr	Arg	Gln	Ser 260	Ser	Leu	His	Arg	Хаа 265	Asn	Arg	Gly	Trp	Gln 270	Val	Asp
Gln	Arg	Ser 275	Cys	Arg	Glu	Lys	Gln 280	Ser	Xaa	Arg	Gly				

<210> 490 <211> 329 <212> PRT <213> Homo sapiens <220> <221> SITE <222> (84) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (328) <223> Xaa equals any of the naturally occurring L-amino acids <400> 490 Ala Gly Gly Glu His Pro Glu Glu Asp Pro Gly Gly Gly Gln Asp Pro Arg Gly Pro Asp Pro Gly Asp Glu Ala Glu Ala Leu Thr Gly Arg Gly Gly Ala Gly Gln Leu Glu Gln Thr Lys Arg Val Lys Ala Asn Leu Glu Lys Ala Lys Gln Thr Leu Glu Asn Glu Arg Gly Glu Leu Ala 55 Asn Glu Val Lys Val Leu Leu Gln Gly Lys Gly Asp Ser Glu His Lys 65 70 Arg Lys Lys Xaa Glu Ala Gln Leu Gln Glu Leu Gln Val Lys Phe Asn Glu Gly Glu Arg Val Arg Thr Glu Leu Ala Asp Lys Val Thr Lys Leu 105 Gln Val Glu Leu Asp Asn Val Thr Gly Leu Leu Ser Gln Ser Asp Ser 115 120 Lys Ser Ser Lys Leu Thr Lys Asp Phe Ser Ala Leu Glu Ser Gln Leu 135 Gln Asp Thr Gln Glu Leu Leu Gln Glu Glu Asn Arg Gln Lys Leu Ser 145 150 155 Leu Ser Thr Lys Leu Lys Gln Val Glu Asp Glu Lys Asn Ser Phe Arg Glu Gln Leu Glu Glu Glu Glu Ala Lys His Asn Leu Glu Lys Gln 185

Ile Ala Thr Leu His Ala Gln Val Ala Asp Met Lys Lys Met Glu 195 200 Asp Ser Val Gly Cys Leu Glu Thr Ala Glu Glu Val Lys Arg Lys Leu Gln Lys Asp Leu Glu Gly Leu Ser Gln Arg His Glu Glu Lys Val Ala 235 230 Ala Tyr Asp Lys Leu Glu Lys Thr Lys Thr Arg Leu Gln Gln Glu Leu 245 250 Asp Asp Leu Leu Val Asp Leu Asp His Gln Arg Gln Ser Ala Cys Asn 265 Leu Glu Lys Lys Gln Lys Lys Phe Asp Gln Leu Leu Ala Glu Glu Lys 280 Thr Ile Ser Ala Lys Tyr Ala Glu Glu Arg Asp Arg Ala Glu Ala Glu 290 295 Ala Arg Glu Lys Glu Thr Lys Ala Leu Ser Leu Ala Arg Ala Leu Glu 310 315 Glu Ala Met Glu Gln Lys Ala Xaa Trp 325 <210> 491 <211> 309 <212> PRT <213> Homo sapiens . <400> 491 Gly Arg Ala Ala Pro Gly Leu Ala Thr Arg Thr Gly Glu Cys Asp Cys Val Ser Gly Ser Met Ala Glu Lys Arg His Thr Arg Asp Ser Glu 20 25 Ala Gln Arg Leu Pro Asp Ser Phe Lys Asp Ser Pro Ser Lys Gly Leu Gly Pro Cys Gly Trp Ile Leu Val Ala Phe Ser Phe Leu Phe Thr Val

Ile Thr Phe Pro Ile Ser Ile Trp Met Cys Ile Lys Ile Lys Glu

75

Tyr Glu Arg Ala Ile Ile Phe Arg Leu Gly Arg Ile Leu Gln Gly Gly 85 90 95

Ala Lys Gly Pro Gly Leu Phe Phe Ile Leu Pro Cys Thr Asp Ser Phe 100 105 110

Ile Lys Val Asp Met Arg Thr Ile Ser Phe Asp Ile Pro Pro Gln Glu 115 120 125

Ile Leu Thr Lys Asp Ser Val Thr Ile Ser Val Asp Gly Val Val Tyr 130 135 140

Tyr Arg Val Gln Asn Ala Thr Leu Ala Val Ala Asn Ile Thr Asn Ala 145 150 155 160

Asp Ser Ala Thr Arg Leu Leu Ala Gln Thr Thr Leu Arg Asn Val Leu 165 170 175

Gly Thr Lys Asn Leu Ser Gln Ile Leu Ser Asp Arg Glu Glu Ile Ala 180 185 190

His Asn Met Gln Ser Thr Leu Asp Asp Ala Thr Asp Ala Trp Gly Ile 195 200 205

Lys Val Glu Arg Val Glu Ile Lys Asp Val Lys Leu Pro Val Gln Leu 210 215 220

Gln Arg Ala Met Ala Ala Glu Ala Glu Ala Ser Arg Glu Ala Arg Ala 225 230 235 240

Lys Val Ile Ala Ala Glu Gly Glu Met Asn Ala Ser Arg Ala Leu Lys 245 250 255

Glu Ala Ser Met Val Ile Thr Glu Ser Pro Ala Ala Leu Gln Leu Arg 260 265 270

Tyr Leu Gln Thr Leu Thr Thr Ile Ala Ala Glu Lys Asn Ser Thr Ile 275 280 285

Val Phe Pro Leu Pro Ile Asp Met Leu Gln Gly Ile Ile Gly Ala Lys 290 295 300

His Ser His Leu Gly 305

<210> 492

<211> 135

<212> PRT

<213> Homo sapiens

 <400> 492

 Glu Thr Leu Pro Ser Asn Thr Met 1 Ser Asn Val Thr Asn Lys Thr 1 S

 Asp Pro Arg Ser Met 20
 Asn Ser Arg Val Phe 1 Ser I Ser I

Gly Ser Ser Phe Asp Leu Asp Tyr Asp Phe Gln Arg Asp Tyr Tyr Asp 115 120 125

Arg Met Tyr Ser Tyr Pro Ala 130 135

<210> 493

<211> 358

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (43)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 493

Gly Gly Ser Ala Met Arg Leu Ala Val Leu Phe Ser Gly Ala Leu Leu 1 5 10 15

Gly Leu Leu Ala Ala Gln Gly Thr Gly Asn Asp Cys Pro His Lys Lys
20 25 30

Ser Ala Thr Leu Leu Pro Ser Phe Thr Val Xaa Pro Thr Val Thr Glu 35 40 45

Ser	Thr 50	Gly	Thr	Thr	Ser	His 55	Arg	Thr	Thr	Lys	Ser 60	His	Lys	Thr	Thr
Thr 65	His	Arg	Thr	Thr	Thr 70	Thr	Gly	Thr	Thr	Ser 75	His	Gly	Pro	Thr	Thr 80
Ala	Thr	His	Asn	Pro 85	Thr	Thr	Thr	Ser	His 90	Gly	Asn	Val	Thr	Val 95	His
Pro	Thr	Ser	Asn 100	Ser	Thr	Ala	Thr	Ser 105	Gln	Gly	Pro	Ser	Thr 110	Ala	Thr
His	Ser	Pro 115	Ala	Thr	Thr	Ser	His 120	Gly	Asn	Ala	Thr	Val 125	His	Pro	Thr
Ser	Asn 130	Ser	Thr	Ala	Thr	Ser 135	Pro	Gly	Phe	Thr	Ser 140	Ser	Ala	His	Pro
Glu 145	Pro	Pro	Pro	Pro	Ser 150	Pro	Ser	Pro	Ser	Pro 155	Thr	Ser	Lys	Glu	Thr 160
Ile	Gly	Asp	Tyr	Thr 165	Trp	Thr	Asn	Gly	Ser 170	Gln	Pro	Суз	Val	His 175	Leu
Gln	Ala	Gln	Ile 180	Gln	Ile	Arg	Val	Met 185	Tyr	Thr	Thr	Gln	Gly 190	Gly	Gly
Glu	Ala	Trp 195	Gly	Ile	Ser	Val	Leu 200	Asn	Pro	Asn	Lys	Thr 205	Lys	Val	Gln
Gly	Ser 210	Cys	Glu	Gly	Ala	His 215	Pro	His	Leu	Leu	Leu 220	Ser	Phe	Pro	Tyr
Gly 225	His	Leu	Ser	Phe	Gly 230	Phe	Met	Gln	Asp	Leu 235	Gln	Gln	Lys	Val	Val 240
Tyr	Leu	Ser	Tyr	Met 245	Ala	Val	Glu	Tyr	Asn 250	Val	Ser	Phe	Pro	His 255	Ala
Ala	Gln	Trp	Thr 260	Phe	Ser	Ala	Gln	Asn 265	Ala	Ser	Leu	Arg	Asp 270	Leu	Gln
Ala	Pro	Leu 275	Gly	Gln	Ser	Phe	Ser 280	Cys	Ser	Asn	Ser	Ser 285	Ile	Ile	Leu
Ser	Pro 290	Ala	Val	His	Leu	Asp 295	Leu	Leu	Ser	Leu	Arg 300	Leu	Gln	Ala	Ala
Gln 305	Leu	Pro	His	Thr	Gly 310	Val	Phe	Gly	Gln	Ser 315	Phe	Ser	Cys	Pro	Ser 320

Asp Arg Ser Ile Leu Leu Pro Leu Ile Ile Gly Leu Ile Leu Leu Gly 325 330 Leu Leu Ala Leu Val Leu Ile Ala Phe Cys Ile Ile Arg Arg Arg Pro 340 345 Ser Ala Tyr Gln Ala Leu 355 <210> 494 <211> 430 <212> PRT <213> Homo sapiens <220> <221> SITE <222> (14) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (15) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (290) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (307) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (412) <223> Xaa equals any of the naturally occurring L-amino acids <400> 494 Gly Arg Pro Ser Ser Gly Leu Arg Ser Pro Gly Pro Gly Xaa Xaa Ser 10 Phe Lys Lys Thr Ser Ser Phe Cys Ala Asp Val Leu Ala Gln Asp Leu 25

His Lys Pro Ala Phe Glu Ala Asp Ile Ser Glu Leu Ile Leu Cys Gln

40

Asn	Glu 50	Val	Asp	Tyr	Ala	Leu 55	Lys	Asn	Leu	Gln	Ala 60	Trp	Met	Lys	Asp
Glu 65	Pro	Arg	Ser	Thr	Asn 70	Leu	Phe	Met	Lys	Leu 75	Asp	Ser	Val	Phe	Ile 80
Trp	Lys	Glu	Pro	Phe 85	Gly	Leu	Val	Leu	Ile 90	Ile	Ala	Pro	Trp	Asn 95	Tyr
Pro	Leu	Asn	Leu 100	Thr	Leu	Val	Leu	Leu 105	Val	Gly	Ala	Leu	Ala 110	Ala	Gly
Asn	Cys	Val 115	Val	Leu	Lys	Pro	Ser 120	Glu	Ile	Ser	Gln	Gly 125	Thr	Glu	Lys
Val	Leu 130	Ala	Glu	Val	Leu	Pro 135	Gln	Tyr	Leu	Asp	Gln 140	Ser	Суз	Phe	Ala
Val 145	Val	Leu	Gly	Gly	Pro 150	Gln	Glu	Thr	Gly	Gln 155	Leu	Leu	Glu	His	Lys 160
Leu	Asp	Tyr	Ile	Phe 165	Phe	Thr	Gly	Ser	Pro 170	Arg	Val	Gly	Lys	Ile 175	Val
Met	Thr	Ala	Ala 180	Thr	Lys	His	Leu	Thr 185	Pro	Val	Thr	Leu	Glu 190	Leu	Gly
Gly	Lys	Asn 195	Pro	Cys	Tyr	Val	Asp 200	Asp	Asn	Cys	Asp	Pro 205	Gln	Thr	Val
Ala	Asn 210	Arg	Val	Ala	Trp	Phe 215	Cys	туr	Phe	Asn	Ala 220	Gly	Gln	Thr	Cys
Val 225	Ala	Pro	Asp	Tyr	Val 230	Leu	Суз	Ser	Pro	Glu 235	Met	Gln	Glu	Arg	Leu 240
Leu	Pro	Ala	Leu	Gln 245	Ser	Thr	Ile	Thr	Arg 250	Phe	Tyr	Gly	Asp	Asp 255	Pro
Gln	Ser	Ser	Pro 260	Asn	Leu	Gly	Arg	11e 265	Ile	Asn	Gln	Lys	Gln 270	Phe	Gln
Arg	Leu	Arg 275	Ala	Leu	Leu	Gly	Cys 280	Gly	Arg	Val	Ala	Ile 285	Gly	Gly	Gln
Ser	Xaa 290	Glu	Ser	Asp	Arg	Tyr 295	Ile	Ala	Pro	Thr	Val 300	Leu	Val	Asp	Val
Gln 305	Glu	Xaa	Glu	Pro	Val 310	Met	Gln	Glu	Glu	Ile 315	Phe	Gly	Pro	Ile	Leu 320

Pro Ile Val Asn Val Gln Ser Leu Asp Glu Ala Ile Glu Phe Ile Asn 325 330 335

Arg Arg Glu Lys Pro Leu Ala Leu Tyr Ala Phe Ser Asn Ser Ser Gln 340 345 350

Val Val Lys Arg Val Leu Thr Gln Thr Ser Ser Gly Gly Phe Cys Gly 355 360 365

Asn Asp Gly Phe Met His Met Thr Leu Ala Ser Leu Pro Phe Gly Gly 370 375 380

Val Gly Ala Ser Gly Met Gly Arg Tyr His Gly Lys Phe Ser Phe Asp 385 390 395 400

Thr Phe Ser His His Arg Ala Cys Leu Leu Arg Xaa Arg Gly Trp Arg
405 410 415

Ser Ser Thr Pro Ser Ala Thr Arg Arg Asn Arg Arg Ala Ala 420 425 430

<210> 495

<211> 439

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (8)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (416)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 495

Asp Ser Arg Thr Arg Tyr Ala Xaa Glu Arg Asp Lys Ala Gln Phe Leu

1 5 10 15

Ser Lys Glu Leu Glu His Val Lys Met Glu Leu Ala Lys Tyr Lys Leu 20 25 30

Ala Glu Lys Thr Glu Thr Ser His Glu Gln Trp Leu Phe Lys Arg Leu
35 40 45

Gln Glu Glu Ala Lys Ser Gly His Leu Ser Arg Glu Val Asp Ala
50 60

WO 00/55180 PCT/US00/05918

Leu 65	Lys	Glu	Lys	Ile	His 70	Glu	Tyr	Met	Ala	Thr 75	Glu	Asp	Leu	Ile	Суs 80
His	Leu	Gln	Gly	Asp 85	His	Ser	Val	Leu	Gln 90	Lys	Lys	Leu	Asn	Gln 95	Gln
Glu	Asn	Arg	Asn 100	Arg	Asp	Leu	Gly	Arg 105	Glu	Ile	Glu	Asn	Leu 110	Thr	Lys
Glu	Leu	Glu 115	Arg	туг	Arg	His	Phe 120	Ser	Lys	Ser	Leu	Arg 125	Pro	Ser	Leu
Asn	Gly 130	Arg	Arg	Ile	Ser	Asp 135	Pro	Gln	Val	Phe	Ser 140	Lys	Glu	Val	Gln
Thr 145	Glu	Ala	Val	Asp	Asn 150	Glu	Pro	Pro	Asp	Tyr 155	Lys	Ser	Leu	Ile	Pro 160
Leu	Glu	Arg	Ala	Val 165	Ile	Asn	Gly	Gln	Leu 170	Tyr	Glu	Glu	Ser	Glu 175	Asn
Gln	Asp	Glu	Asp 180	Pro	Asn	Asp	Glu	Gly 185	Ser	Val	Leu	Ser	Phe 190	Lys	Cys
Ser	Gln	Ser 195	Thr	Pro	Cys	Pro	Val 200	Asn	Arg	Lys	Leu	Trp 205	Ile	Pro	Trp
Met	Lys 210	Ser	Lys	Glu	Gly	His 215	Leu	Gln	Asn	Gly	Lys 220	Met	Gln	Thr	Lys
Pro 225	Asn	Ala	Asn	Phe	Val 230	Gln	Pro	Gly	Asp	Leu 235	Val	Leu	Ser	His	Thr 240
Pro	Gly	Gln	Pro	Leu 245	His	Ile	Lys	Val	Thr 250	Pro	Asp	His	Val	Gln 255	Asn
Thr	Ala	Thr	Leu 260	Glu	Ile	Thr	Ser	Pro 265	Thr	Thr	Glu	Ser	Pro 270	His	Ser
Tyr	Thr	Ser 275	Thr	Ala	Val	Ile	Pro 280	Asn	Суз	Gly	Thr	Pro 285	Lys	Gln	Arg
Ile	Thr 290	Ile	Leu	Gln	Asn	Ala 295	Ser	Ile	Thr	Pro	Val 300	Lys	Ser	Lys	Thr
Ser 305	Thr	Glu	Asp	Leu	Met 310	Asn	Leu	Glu	Gln	Gly 315	Met	Ser	Pro	Ile	Thr 320
Met	Ala	Thr	Phe	Ala 325	Arg	Ala	Gln	Thr	Pro 330	Glu	Ser	Cys	Gly	Ser 335	Leu

Thr Pro Glu Arg Thr Met Ser Pro Ile Gln Val Leu Ala Val Thr Gly 340 345 350

Ser Ala Ser Ser Pro Glu Gln Gly Arg Ser Pro Glu Pro Thr Glu Ile 355 360 365

Ser Ala Lys His Ala Ile Phe Arg Val Ser Pro Asp Arg Gln Ser Ser 370 375 380

Trp Gln Phe Gln Arg Ser Asn Ser Asn Ser Ser Ser Val Ile Thr Thr 385 390 395 400

Glu Asp Asn Lys Ile His Ile His Leu Gly Ser Pro Tyr Met Gln Xaa
405 410 415

Val Ala Ser Pro Val Arg Pro Ala Ser Pro Ser Ala Pro Leu Gln Asp 420 425 430

Asn Arg Thr Gln Gly Leu Ile 435

<210> 496

<211> 149

<212> PRT

<213> Homo sapiens

<400> 496

Glu Ser Thr Gly Thr Ala Ser Arg Ala Ala Thr Met Pro Asn Phe Ser

1 5 10 15

Gly Asn Trp Lys Ile Ile Arg Ser Glu Asn Phe Glu Glu Leu Leu Lys
20 25 30

Val Leu Gly Val Asn Val Met Leu Arg Lys Ile Ala Val Ala Ala Ala 35 40 45

Ser Lys Pro Ala Val Glu Ile Lys Gln Glu Gly Asp Thr Phe Tyr Ile 50 55 60

Lys Thr Ser Thr Thr Val Arg Thr Thr Glu Ile Asn Phe Lys Val Gly 65 70 75 80

Glu Glu Phe Glu Glu Gln Thr Val Asp Gly Arg Pro Cys Lys Ser Leu
85 90 95

Val Lys Trp Glu Ser Glu Asn Lys Met Val Cys Glu Gln Lys Leu Leu 100 105 110

Lys Gly Glu Gly Pro Lys Thr Ser Trp Thr Arg Glu Leu Thr Asn Asp

115 120 125

Gly Glu Leu Ile Leu Thr Met Thr Ala Asp Asp Val Val Cys Thr Arg 130 135 140

Val Tyr Val Arg Glu 145

<210> 497

<211> 395

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (164)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 497

Ala Glu Lys Lys Ser Thr Lys Thr His Ser Leu Leu Val Gly Arg Glu
1 5 10 15

Asp Arg Asn Asp Met Ser Thr Ala Gly Lys Val Ile Lys Cys Lys Ala

Ala Val Leu Trp Glu Val Lys Lys Pro Phe Ser Ile Glu Asp Val Glu 35 40 45

Val Ala Pro Pro Lys Ala Tyr Glu Val Arg Ile Lys Met Val Ala Val 50 55 60

Gly Ile Cys Arg Thr Asp Asp His Val Val Ser Gly Asn Leu Val Thr 65 70 75 80

Pro Leu Pro Val Ile Leu Gly His Glu Ala Ala Gly Ile Val Glu Ser 85 90 95

Val Gly Glu Gly Val Thr Thr Val Lys Pro Gly Asp Lys Val Ile Pro 100 105 110

Leu Phe Thr Pro Gln Cys Gly Lys Cys Arg Val Cys Lys Asn Pro Glu 115 120 125

Ser Asn Tyr Cys Leu Lys Asn Asp Leu Gly Asn Pro Arg Gly Thr Leu 130 135 140

Gln Asp Gly Thr Arg Arg Phe Thr Cys Arg Gly Lys Pro Ile His His 145 150 155 160

Phe Le	u Gly	Xaa	Ser 165	Thr	Phe	Ser	Gln	туг 170	Thr	Val	Val	Asp	Glu 175	Asn
Ala Va	l Ala	Lys 180	Ile	Asp	Ala	Ala	Ser 185	Pro	Leu	Glu	Lys	Val 190	Cys	Leu
Ile G	y Cys 195		Phe	Ser	Thr	Gly 200	Tyr	Gly	Ser	Ala	Val 205	Asn	Val	Ala
Lys Va		Pro	Gly	Ser	Thr 215	Cys	Ala	Val	Phe	Gly 220	Leu	Gly	Gly	Val
Gly Le	u Ser	Ala	Val	Met 230	Gly	Cys	Lys	Ala	Ala 235	Gly	Ala	Ala	Arg	Ile 240
Ile Al	a Val	Asp	Ile 245	Asn	Lys	Asp	Lys	Phe 250	Ala	Lys	Ala	Lys	Glu 255	Leu
Gly Al	a Thr	Glu 260	Cys	Ile	Asn	Pro	Gln 265	Asp	туr	Lys	Lys	Pro 270	Ile	Gln
Glu Va	1 Leu 275	Lys	Glu	Met	Thr	Asp 280	Gly	Gly	Val	Asp	Phe 285	Ser	Phe	Glu
Val II 29		Arg	Leu	Asp	Thr 295	Met	Met	Ala	Ser	Leu 300	Leu	Cys	Cys	His
Glu Al 305	a Cys	Gly	Thr	Ser 310	Val	Ile	Val	Gly	Val 315	Pro	Pro	Ala	Ser	Gln 320
Asn Le	u Ser	Ile	Asn 325	Pro	Met	Leu	Leu	Leu 330	Thr	Gly	Arg	Thr	Trp 335	Lys
Gly Al	a Val	Tyr 340	Gly	Gly	Phe	Lys	Ser 345	Lys	Glu	Gly	Ile	Pro 350	Lys	Leu
Val Al	a Asp 355	Phe	Met	Ala	Lys	160	Phe	Ser	Leu	Asp	Ala 365	Leu	Ile	Thr
His Va		Pro	Phe	Glu	Lys 375	Ile	Asn	Glu	Gly	Phe 380	Asp	Leu	Leu	His
Ser Gl 385	y Lys	Ser	Ile	Arg 390	Thr	Val	Leu	Thr	Phe 395					

<210> 498

<211> 281

<212> PRT

<213> Homo sapiens

<220> <221> SITE <222> (5) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (21) <223> Xaa equals any of the naturally occurring L-amino acids <400> 498 Arg Thr Leu Gly Xaa Pro Ser Ala Ser Val Leu Pro His Ser Arg Ala 1 5 10 15 Leu Leu Thr Pro Xaa Arg Ala Pro Lys Lys Met Ala Ile Ser Gly Val Pro Val Leu Gly Phe Phe Ile Ile Ala Val Leu Met Ser Ala Gln Glu Ser Trp Ala Ile Lys Glu Glu His Val Ile Ile Gln Ala Glu Phe 50 55 Tyr Leu Asn Pro Asp Gln Ser Gly Glu Phe Met Phe Asp Phe Asp Gly Asp Glu Ile Phe His Val Asp Met Ala Lys Lys Glu Thr Val Trp Arg 90 Leu Glu Glu Phe Gly Arg Phe Ala Ser Phe Glu Ala Gln Gly Ala Leu 100 105 Ala Asn Ile Ala Val Asp Lys Ala Asn Leu Glu Ile Met Thr Lys Arg Ser Asn Tyr Thr Pro Ile Thr Asn Val Pro Pro Glu Val Thr Val Leu 135 140 Thr Asn Ser Pro Val Glu Leu Arg Glu Pro Asn Val Leu Ile Cys Phe 145 150 Ile Asp Lys Phe Thr Pro Pro Val Val Asn Val Thr Trp Leu Arg Asn 165 170 Gly Lys Pro Val Thr Thr Gly Val Ser Glu Thr Val Phe Leu Pro Arg 185 Glu Asp His Leu Phe Arg Lys Phe His Tyr Leu Pro Phe Leu Pro Ser

200

Thr Glu Asp Val Tyr Asp Cys Arg Val Glu His Trp Gly Leu Asp Glu 210 215 220

Pro Leu Leu Lys His Trp Glu Phe Asp Ala Pro Ser Pro Leu Pro Glu 225 230 235 240

Thr Thr Glu Asn Val Val Cys Ala Leu Gly Leu Thr Val Gly Leu Val
245 250 255

Gly Ile Ile Gly Thr Ile Phe Ile Ile Lys Gly Val Arg Lys Ser 260 265 270

Asn Ala Ala Glu Arg Arg Gly Pro Leu 275 280

<210> 499

<211> 446

<212> PRT

<213> Homo sapiens

<400> 499

Pro Glu Gln Gly Gly Glu Arg Leu Ser Cys Pro Pro Glu Leu Leu Pro 1 5 10 15

Gly Asp Asn Pro Ser Gln Pro Ile Ala Gln Pro Arg Ser Pro Tyr Ile 20 25 30

Arg Pro Arg Leu Leu Ala Leu Pro Leu Gly Gln Cys His Leu Gln Asp 35 40 45

Thr Asp Ser Pro Pro Ser Ala Gln Pro Ser Gln Val Ser Tyr Thr Ala
50 55 60

Thr Met Pro Phe Gly Asn Thr His Asn Lys Phe Lys Leu Asn Tyr Lys 65 70 75 80

Pro Glu Glu Glu Tyr Pro Asp Leu Ser Lys His Asn Asn His Met Ala 85 90 95

Lys Val Leu Thr Leu Glu Leu Tyr Lys Lys Leu Arg Asp Lys Glu Thr 100 105 110

Pro Ser Gly Phe Thr Val Asp Asp Val Ile Gln Thr Gly Val Asp Asn 115 120 125

Pro Gly His Pro Phe Ile Met Thr Val Gly Cys Val Ala Gly Asp Glu 130 135 140

Glu Ser Tyr Glu Val Phe Lys Glu Leu Phe Asp Pro Ile Ile Ser Asp

145		150				155					160
Arg His (Gly Gly	Tyr Lys 165	Pro Th	nr Asp	Lys 170	His	Lys	Thr	Asp	Leu 175	Asn
His Glu A	Asn Leu 180	Lys Gly	Gly As	sp Asp 185	Leu	Asp	Pro	Asn	Tyr 190	Val	Leu
Ser Ser A	Arg Val 195	Arg Thr	Gly Ar 20		Ile	Lys	Gly	Tyr 205	Thr	Leu	Pro
Pro His C 210	Cys Ser	Arg Gly	Glu Ar 215	g Arg	Ala	Val	Glu 220	Lys	Leu	Ser	Val
Glu Ala I 225	Leu Asn	Ser Leu 230	Thr Gl	y Glu	Phe	Lys 235	Gly	Lys	Tyr	Tyr	Pro 240
Leu Lys S	Ser Met	Thr Glu 245	Lys Gl	u Gln	Gln 250	Gln	Leu	Ile	Asp	Asp 255	His
Phe Leu I	Phe Asp 260	Lys Pro	Val Se	er Pro 265	Leu	Leu	Leu	Ala	Ser 270	Gly	Met
Ala Arg A	Asp Trp 275	Pro Asp	Ala Ar 28		Ile	Trp	His	Asn 285	Asp	Asn	Lys
Ser Phe I 290	Leu Val	Trp Val	Asn Gl 295	u Glu	Asp	His	Leu 300	Arg	Val	Ile	Ser
Met Glu I 305	Lys Gly	Gly Asn 310	Met Ly	s Glu	Val	Phe 315	Arg	Arg	Phe	Cys	Val 320
Gly Leu G	Sln Lys	Ile Glu 325	Glu Il	e Phe	Lys 330	Lys	Ala	Gly	His	Pro 335	Phe
Met Trp A	Asn Gln 340	His Leu	Gly Ty	7r Val 345	Leu	Thr	Cys	Pro	Ser 350	Asn	Leu
Gly Thr G	Sly Leu 355	Arg Gly	Gly Va 36		Val	Lys	Leu	Ala 365	His	Leu	Ser
Lys His F 370	Pro Lys	Phe Glu	Glu Il 375	e Leu	Thr	Arg	Leu 380	Arg	Leu	Gln	Lys
Arg Gly T	Thr Gly	Gly Val 390	Asp Th	r Ala	Ala	Val 395	Gly	Ser	Val	Phe	Asp 400
Val Ser A	Asn Ala	Asp Arg 405	Leu Gl	y Ser	Ser 410	Glu	Val	Glu	Gln	Val 415	Gln
Leu Val V	al Asp	Gly Val	Lys Le	u Met	Val	Glu	Met	Glu	Lys	Lys	Leu